

PLAGIARISM ACROSS EUROPE AND BEYOND 2015

Conference Proceedings

June 10–12, 2015
Brno, Czech Republic



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AND BEYOND 2015**

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KEYNOTE PRESENTATION ABSTRACTS

ENACTING ACADEMIC INTEGRITY – IT TAKES COURAGE

Tracey Bretag

Abstract:

In 2013 the International Center for Academic Integrity revised the Fundamental Values of Academic Integrity to include courage as follows:

Courage is an element of character that allows learners to commit to the quality of their education by holding themselves and their fellow learners to the highest standards of academic integrity even when doing so involves risk of negative consequences or reprisal. Being courageous means acting in accordance with one's convictions. Like intellectual capacity, courage can only develop in environments where it is tested. Members of academic communities must learn not only to make integrous decisions, but also to display the courage necessary to follow their decisions with action. Only through the exercise of courage is it possible to create and maintain communities of integrity strong enough to endure as responsible, respectful, trustworthy, fair and honest regardless of the circumstances they face. (Revised Fundamental Values of Academic Integrity, ICAI 2013)

Dr Bretag will challenge participants to consider why the virtue of courage is critical for both individuals and academic communities to uphold academic integrity. Dr Bretag will provide examples from the community and university case studies to demonstrate how courage works in practice.

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IPPHEAE: PAST, PRESENT AND FUTURE

Irene Glendinning

Abstract:

Almost 300,000 Euros of European Union funding was invested in the project *Impact of Policies for Plagiarism in Higher Education Across Europe* (IPPHEAE) that was conducted between 2010 and 2013. Was this money well spent? What impact did the project have on national and institutional policies for academic dishonesty and plagiarism? What evidence is there that policies for academic integrity in higher education in different parts of Europe are fit for purpose? How can institutions be sure their policies are effective and being applied consistently? What more needs to be done? The presentation will attempt to answer all these questions.

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ESSAY MILLS

Phil Newton

Abstract:

The use of custom essay writing companies, essay mills and other paid third parties appears to be widespread in modern higher education, and almost any sort of assignment is now available for purchase. They are cheap, difficult to detect and available very quickly. Their use represent a serious threat academic integrity around the world. This presentation will describe the current status of paid third parties in education, and will discuss measures designed to prevent their use.

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PLAGIARISM, COPYRIGHT LAW AND THE MYTH OF ORIGINALITY

Matěj Myška

Abstract:

The development of information and communication technology (ICT) brought *inter alia* a significant democratization of creativity. All that could be written could be published, all that could be published could be consumed and re-used. Such fluid creative environment is however prone to rather frivolous approach to attribution of the authors of the works used. All the digitalization fully realized the ubiquity of the non-tangible creative works. As a result the traditional distinction between the unprotected idea and protected expression in the work *de facto* diminished. The expression could be directly used as such as “building block” for another creative production without even acknowledging the original author. Such use however directly contravenes and infringes the copyright (author s rights) of the mythical *original* author. The first part of the presentation thus analyzes the legal status of such behavior and provides for an overview of the legal treatment of plagiarism. The analysis covers copyright (author s rights) in the current continental Law. Due to the relatively low amount of relevant case law in the Czech Republic, the significantly richer case law of Germany is used for comparison. However, the presentation strives to arrive at generally applicable conclusions. Therefore also the common law systems (UK, USA) are briefly examined for comparison. Simply put, this part tries to find and answer *whether and when is plagiarism illegal?* The exclusive and restrictive approach however is not undoubtedly accepted. The ideas of the intellectual commons open content stem and build upon the derivative character of the shared creative. Or as expressed aptly by Trent Reznor in the song Copy of a: “*I am just a copy of a copy of a copy; Everything I say has come before; Assembled into something into something into something*”. The second part of the presentation makes an attempt to identify and analyze these arguments for making certain types of plagiarism legal. Consequently it seeks to solve the question whether *certain type of plagiarism could be legal?* Finally, the last part of the presentation deals with possible approaches and their consequences how to answer this particular question namely the further strengthening of protection, introduction of formalities and standardization in the area of licensing and rights management.

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SHAKING THINGS UP: WHEN WHAT WE'VE ALWAYS DONE HAS NEVER WORKED, IT MAY BE TIME TO TRY SOMETHING NEW

Teddi Fishman

Abstract:

We've tried promotion, prevention, policing and punishment. We've tried deterrence, detection and discipline. Despite our best efforts, we are still often frustrated by the scope, scale, and persistence of integrity challenges in higher education. In her talk, Teddi Fishman, the Director of the International Center for Academic Integrity will suggest how innovative ideas and approaches ranging from Improvisational Comedy to Behavioral Economics might be applied to the most intransigent academic integrity challenges.

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PAPERS—SECTION I
BEST PRACTICES AND STRATEGIES FOR AWARENESS,
PREVENTION, DETECTION OF ACADEMIC
MISCONDUCT

A PILOT STUDY ON STUDENTS' AND LECTURER'S PERSPECTIVE ON PLAGIARISM IN HIGHER PROFESSIONAL EDUCATION IN FLANDERS

Kim Janssens, Jose Tummers

Abstract:

The current study addressed plagiarism in higher professional education from an attitudinal perspective. In this work, plagiarism was considered from the point of view of both bachelor students and lecturers. The goal was to ascertain how plagiarism is defined and perceived by both parties, and how students and lecturers act upon plagiarism. Results showed that students – in spite of the availability of software detection tools – still lack awareness of what plagiarism entails. Although lecturers were shown to have more insight in the complexity of the topic they were found to display a rather compliant attitude toward plagiarism. These findings are supported by the low response rate for the current study: the interest in addressing plagiarism properly is lacking throughout the institution.

Hence, this pilot study yet again highlights the importance of (fighting) plagiarism. It is crucial that HEIs do not turn a blind eye and explicitly address this problem at all levels of the institution, not only because the quality of educational programs decreases when plagiarism is not dealt with, but also because the reputation of HEIs is in danger of being jeopardized.

Key words: Higher Education Institution; plagiarism; lecturers; students

1 Plagiarism in higher education

Over the past decades, cases of student plagiarism in higher education have increased substantially (Dee & Jacob, 2012). Therefore, clear academic staff guidelines for detecting and tackling plagiarism should be introduced in higher education institutions (HEIs). However, plagiarism is a concept that is not that straightforward and can be interpreted from a myriad of perspectives (Bretag, 2013). Moreover, plagiarism is not a legal term as such given that it does not per se entail a violation of copyright law (Stearns, 1992). Students and staff are often not familiar with the diverse complexities of the description of plagiarism. Hence, students enrolled in a higher education program fall into the plagiarism trap quite regularly. They plagiarize without being fully aware of their infringements of the academic integrity or without the knowledge of how misunderstandings regarding the current conventions can be evaded. In addition, higher education students are often still too little familiar with correctly citing and referencing in a text and plagiarize unintentionally. As a result, some acts of plagiarism can be merely due to ignorance.

Since the emergence of the Internet and the easiness with which students can get information combined with deteriorating ethical values of students (Gross, 2011), copy pasting (parts of) a text has become easier today. Moreover, students wrongly underestimate the importance or the severity of plagiarism and seem to trivialize and justify their and fellow students' behavior (Park, 2003). Foltynek et al. (2014) also mention the higher education students' limited awareness of the meaning of copyright

and intellectual property rights. Because there is no legal framework available for plagiarism in Belgium, the academic staff of Belgian HEIs find defining, detecting and acting upon plagiarism quite complex and time-consuming.

In order to better grasp the concept of plagiarism, the European project “Impact of policies for plagiarism in higher education across Europe” (IPPHEAE) examined the understanding of and experience in HEIs with plagiarism in 27 countries, including Belgium. This research project was funded by the Lifelong Learning Program of the EU and conducted from 2010–2013. Its main focus was to find out how plagiarism is seen in the different European HEIs participating (aimed at bachelors' and masters' degree level) and how the HEIs act upon cases of plagiarism. The most important result for Belgium was that Belgian HEIs are aware of software tools detecting plagiarism (Glendinning, 2013). Similarly, Hellaby (2011) pointed out that a growing number of HEIs are taking action against plagiarism and actively scan for plagiarized work by means of detection software. Over the last couple of years, a downward trend regarding cases of plagiarism is perceived in universities across Belgium. According to the university board, this decrease is mainly the consequence of the deterrent effect of the implementation of the software TurnItIn¹ (DeMorgen, 2013). However, research has shown that introducing a plagiarism detection instrument does not automatically imply that students will not plagiarize. Although software detection tools may help students and staff to control written work for plagiarism, Youmans (2011) found that when students are warned beforehand that the plagiarism detection tool would be applied to scan their texts this warning did not decrease the number of plagiarism cases. In a recent study, Dee and Jacob (2012) set up a field experiment in which they looked into the effect of a web-based tutorial explaining and demonstrating plagiarism on its prevalence. The tutorial led to an increase in the students' awareness and knowledge of the topic, hence suggesting that prevention and education are more effective and efficient rather than the probability of getting caught and punished.

Research has shown that staff in higher education come across acts of plagiarism at a certain point in their career (Park, 2004). However, academic staff are not likely to give priority to detecting plagiarism. Often, they are reluctant toward engaging in the administrative procedures of the HEI when taking action in denouncing acts of plagiarism (Dee & Jacob, 2012). These findings support the IPPHEAE study which unveiled that staff at Belgian HEIs lean toward a rather relaxed approach to supervising at exams and limited sanctions are inflicted upon those breaking the rules (Glendinning, 2013). What is striking is the low response rate of teaching staff and students in this European survey which implies a lack of interest from both parties. It seems fitting to conclude that Belgian HEIs are somewhat reluctant toward the topic and plagiarism appears not to be high on the priority list. Out of the 4948 participants who took the European survey (2010–2013) only 9 were Belgian. The neighboring countries scored similarly low (The Netherlands: 5 respondents, Luxembourg: 4 respondents). The overall score on the Academic Integrity Maturity Model the IPPHEAE project developed was also rather low, leaving Belgium with a ranking on this Model of 13 out of the 27 participating countries (Glendinning, 2013).

¹TurnItIn is an online service that detects plagiarism: the tool offers the possibility to compare texts with references and can therefore easily detect similarities with other documents.

2 Present research

Research questions

By means of a case study in one HEI, UC Leuven-Limburg, the importance attributed to plagiarism in Flemish higher professional education was considered from both students' and lecturers' perspectives. A survey was administered to students and lecturers to map their perception of and attitudes toward plagiarism. The following research questions were addressed using a quantitative approach:

- To what extent are students in HE aware of plagiarism? To what extent can any differences be attributed to students' SES and educational program?
- How tolerant are students in HE toward plagiarism? To what extent can any differences be attributed to students' SES and educational program?
- How tolerant are lecturers in HE toward plagiarism?
- How do lecturers in HE deal with acts of plagiarism?

Plagiarism definition

In the present study, plagiarism is described as defined by the Education and Examination Regulations of UC Leuven-Limburg:

“Irregularity also includes plagiarism. Plagiarism is an irregularity which consists of copying (entirely or partially) other people's work (ideas, texts, structures, images, plans,...) literally or in a slightly modified manner without adequately citing the source. This regulation also applies to copying one's own work without citing the sources” (Education and Examination Regulations, art. 128).

Participants

For this pilot study, an Internet questionnaire on plagiarism was administered by the internal e-mail system to both lecturers and students at UC Leuven-Limburg – from bachelor programs that vary from Business Studies over Teacher Training to Social Work and Health Care – as to get insights from a variety of perspectives on plagiarism. It is striking that out of 1500 faculty members and over 15000 students only 115 lecturers and 524 students from the various educational programs actually filled out the questionnaire. Moreover, some heads of faculty seemed rather reluctant to have their staff and students participate in the inquiry.

Measures

The **lecturers' questionnaire** contained questions regarding their knowledge on the Education and Examination Regulations, on how they define and describe plagiarism, in how far they undertake action when coming across plagiarism, and regarding their attitude toward the HEI's policy concerning plagiarism. In addition, lecturers were asked to fill out their educational background, age, how long they have been working in education and in which educational program(s) they are currently active.

In the **student's questionnaire**, participants were presented with three scenarios on the perceived justice of fraudulent situations (see Appendix 1), they were queried on how they define and describe plagiarism, how they perceive action(s) undertaken by lecturers, and whether and how they undertake action to avoid plagiarism in their own work. Finally, students were asked about their educational background, age, current study year within the educational program, and how long ago they graduated from high school.

3 Results

3.1 Results Questionnaire lecturers

Sample characteristics

A total of 115 lecturers of UC Leuven-Limburg (31 men and 84 women) took part in this study. Of these participants 6 lecture in Health Care, 49 in Business Studies, 29 in Teacher Training, 19 in Social Work and 12 lecture at the Technology department. Eight lecturers hold a PhD, 15 a bachelor's and 92 a master's degree.

Questionnaire

Knowledge of the Education and Examination Regulations. Twenty-four lecturers (21%) indicated having the necessary knowledge regarding the Education and Examination Regulations, whereas 20 (17%) lecturers stated to have no knowledge of the content of the Regulations and therefore also do not apply them. Seventy-one lecturers (62%) claimed to merely have a moderate knowledge of the Regulations.

Defining and describing plagiarism. The results for the four statements measuring the staff members' definition and description of plagiarism are presented in figure 1.

Every lecturer (but two) agreed upon that exactly copying information without mentioning the source is an act of plagiarism (Statement 1). When asked whether copying a line of reasoning in their own words without mentioning the source is plagiarism, results were almost evenly split, as indicated by the similar height of the bars for Statement 2. Staff members are almost unanimous in their opinion that exactly copying information of the Internet without mentioning the source is plagiarism (Statement 3). Fully or partially copying an image without referring to the source is categorized as plagiarism by two thirds of the staff members (Statement 4).

Action(s) undertaken to prevent and penalize plagiarism. Figure 2 visualizes the curative and penalizing actions against plagiarism undertaken by staff members.

Lecturers who give students a warning when coming across an act of plagiarism are equally represented as lecturers who do not (Statement 1). Lecturers who subtract points are underrepresented in this sample (Statement 2). An underrepresentation is also noticeable of lecturers who address the ascertainment of plagiarism with the Head of Faculty (Statement 3). In a similar vein, lecturers are not prone to addressing acts of plagiarism with the ombudsman (Statement 4) or to the chairman of the exam committee (Statement 5). Amongst the lecturers who filled out the questionnaire,

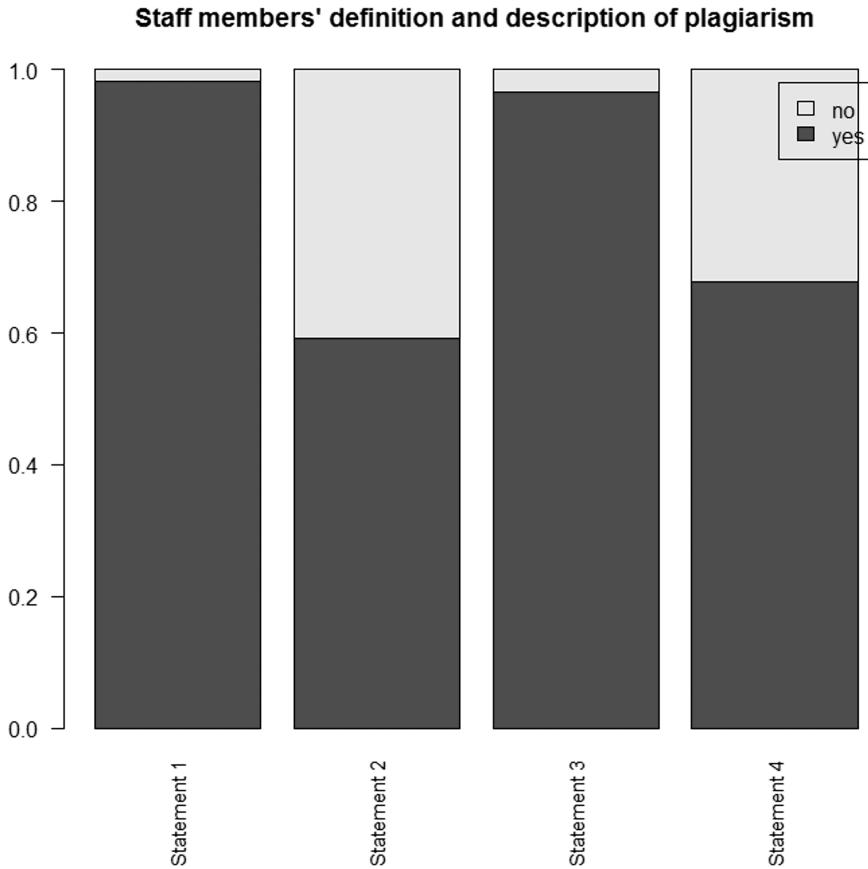


Figure 1. Staff members' definition and description of plagiarism

those who take (some kind of) action are overrepresented ($n = 112$; 97%), whereas those who do not act upon plagiarism and turn a blind eye are underrepresented ($n = 3$; 3%).

3.2 Results Questionnaire students

Sample characteristics

Five hundred and twenty-four students from different educational programs ($n_{\text{SchoolOfArts}} = 11$, $n_{\text{Health}} = 40$, $n_{\text{BusinessStudies}} = 249$, $n_{\text{TeacherTraining}} = 123$, $n_{\text{SocialWork}} = 74$, and $n_{\text{Technology}} = 27$) participated in this questionnaire. The vast majority of students indicated to have an educational background in General Secondary Education ($n = 299$), followed by Technical Secondary Education ($n = 183$), Vocational Secondary Education ($n = 25$) and Art Secondary Education ($n = 14$) (3 students did not specify their high school background). Most students mention having parents or guardians

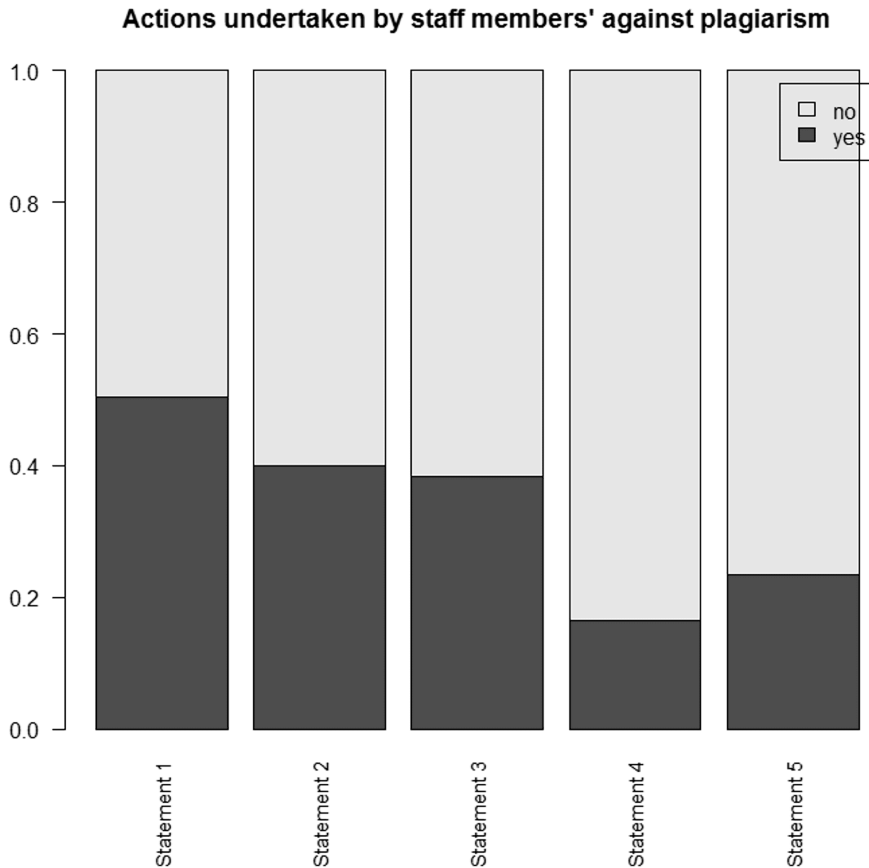


Figure 2. Staff members' actions undertaken against plagiarism

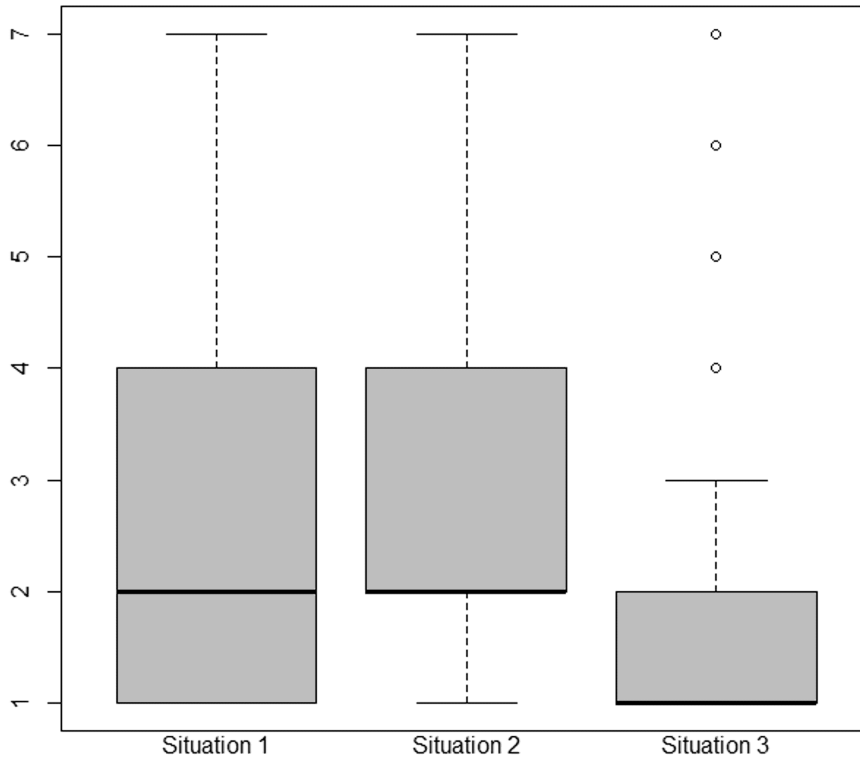
holding a high school diploma ($n_{\text{mother/guardian}} = 215$ and $n_{\text{father/guardian}} = 233$), followed by holding a diploma from a HEI ($n_{\text{mother/guardian}} = 211$ and $n_{\text{father/guardian}} = 166$), having a university degree ($n_{\text{mother/guardian}} = 63$ and $n_{\text{father/guardian}} = 85$) and having completed elementary school ($n_{\text{mother/guardian}} = 35$ and $n_{\text{father/guardian}} = 40$).

Questionnaire

Perceived justice of fraudulent situations. Students agree that the three fraudulent situations are unjust (on a 7-point scale ranging from totally unjust to totally just), as shown in figure 3.

No significant difference was found in perceived justice between scenario 1 and scenario 2 ($t(523) = -0.63$, $p > .05$). In contrast, comparing scenario 1 to scenario 3 yielded a highly significant difference ($t(523) = 14.05$, $p < .001$) as did the comparison of scenario 2 and scenario 3 ($t(523) = 15.78$, $p < .001$). These data show that the

Students' perceptions of fraudulent situations



(see appendix 1)

Figure 3. Students' perception of fraudulent situations

extent to which a situation is perceived as unjust correlates with the students' personal involvement, opposing situation 3 to the first two situations. Only when the fraudulent situation encompasses their own work students perceive the situation as unjust.

Defining and describing plagiarism. Students were queried whether they agreed or disagreed on six questions as to **define the concept of plagiarism**. The answers are summarized in figure 4.

Most of the students disagreed that copying information literally without referral to sources is acceptable (Statement 1). An equal amount of students finds copying information literally without referral to sources acceptable when adjusting the text on a number of points (Statement 2). Apparently, copying a line of thoughts in your own words without referral to sources is acceptable to the majority of students (Statement

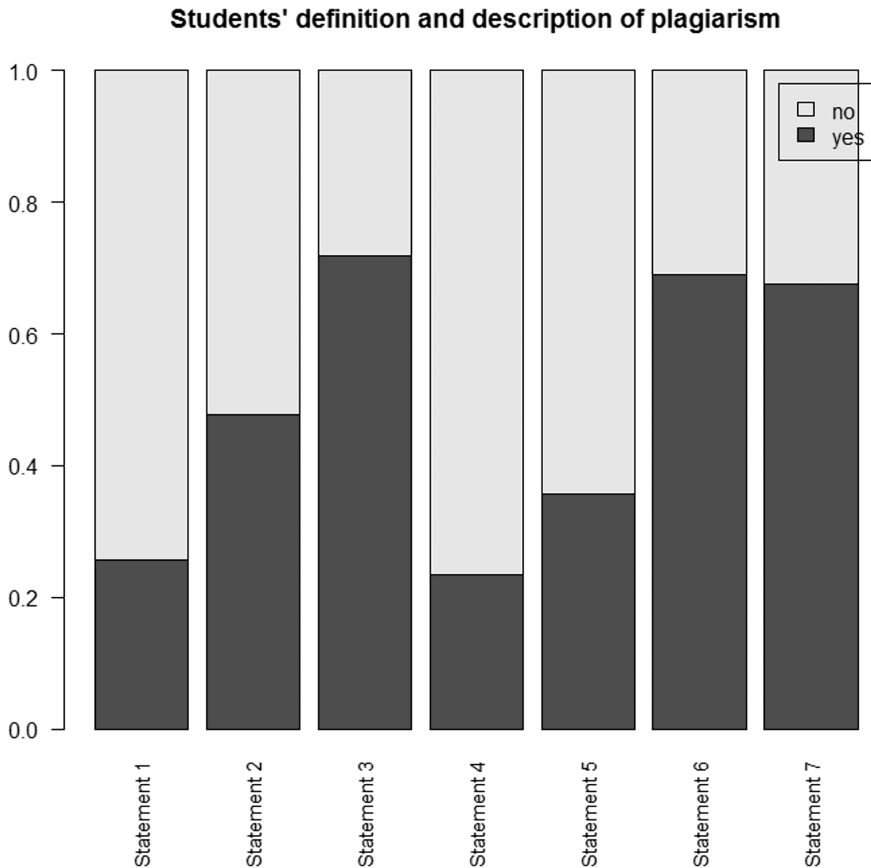


Figure 4. Students' definition and description of plagiarism

3). Overall, copying a text from the Internet without source referral is indicated as unacceptable (Statement 4). Students do not consider using graphs, tables, or figures found on the Internet without source reference acceptable (Statement 5). In contrast, using music, photos or videos from the Internet without referral to sources is largely accepted by students (Statement 6). Likewise, using music, photos or videos found on social media without source referral is acceptable according to the majority of participating students (Statement 7).

In addition, students were asked to indicate to what extent they agreed upon six statements **describing plagiarism** (e.g. "Missing references to sources is plagiarism"), with answers ranging from 1 = I totally disagree over 4 = neutral to 7 = I totally agree. In further analysis, the mean of these six statements is used (Cronbach's alpha = .76). It is noteworthy that the average score has a mean slightly below the neutral score ($M = 3.96$, $SD = 0.94$).

Table 1

Impact of educational program on plagiarism description (six combined statements)

Educational program	Mean	95% CI
Health Care	4.30	[4.01;4.59]
Social Work	4.15	[3.94;4.36]
Technology	4.10	[3.75;4.45]
School of Arts	4.00	[3.45;4.55]
Teacher Training	3.87	[3.71;4.04]
Business Studies	3.85	[3.73;3.96]

A sequential ANOVA carried out on the GLM with plagiarism description as response variable and educational program as explanatory variable (car library in R; Fox & Weisberg, 2011) reveals that the educational program students are enrolled in has an overall significant impact on the description of plagiarism (six combined statements), $p < .05$. This means that how broad or narrow students describe plagiarism depends on the program they follow at the HEI. To get a clearer view on which educational programs are responsible for this significant result, we analyzed the predicted values using the effects library in R (Fox, 2003). The analyses on the differences between the predicted variable values are summarized in table 1. ‘

A closer look at the individual CI's, reveals that only Health Care students have a significantly positive score for the description of plagiarism. The picture emerging for Business Studies students is the opposite: those students have a (too) broad definition of plagiarism.

A sequential ANOVA performed on the GLM with plagiarism description as response variable and study duration as explanatory variable indicated a significant linear effect of how long students take to finish their educational program on their description of plagiarism, with $p < .001$. The longer they take to complete the bachelor program the narrower they describe plagiarism. Possibly, the level of students' maturity explains this effect: the longer they take to finish their educational program the older they are and presumably the more mature they are and the more they seem to grasp the implications of plagiarizing.

Action(s) undertaken by lecturers. Four statements assessed the extent to which students perceive lecturers' preventive and curative actions against plagiarism (e.g. "Lecturers do not adequately stress out the importance of referral to sources"), with answers ranging from 1 = I totally disagree over 4 = neutral to 7 = I totally agree. For further analysis, the mean of these four statements is used (Cronbach's alpha = .71). This average mean score reveals that students feel to be insufficiently informed by their teaching staff on plagiarism and that the current sanctions imposed in case of plagiarism are considered insufficient to have a deterrent effect on their behavior ($M = 3.87$; $SD = 1.23$).

A sequential ANOVA carried out on the GLM with perceived actions undertaken by lecturers (four combined statements) as response variable and educational program as

Table 2

Impact of educational program on perceived actions undertaken by lecturers (four combined statements)

Educational program	Mean	95% CI
Technology	4.52	[4.06;4.97]
Business Studies	4.04	[3.89;4.19]
Teacher Training	3.83	[3.62;4.05]
School of Arts	3.58	[2.88;4.31]
Health Care	3.57	[3.19;3.94]
Social Work	3.39	[3.12;3.67]

explanatory variable identifies a significant relationship ($p < .001$). Table 2 summarizes the predicted values of the different educational programs.

Only in the Technology department, the efforts made by the teaching staff to inform the students of plagiarism are perceived as sufficient by the students. On the contrary, in two departments, Health Care and Social Work, the students deem the information on plagiarism by their teachers largely insufficient.

When we look for a relation between the students' definition of plagiarism and their perception of their teachers' informative and sanctioning efforts on that matter, no correlation worth mentioning appears ($r = -.16$), further sustaining the need for concerted action to make students aware of plagiarism.

Action(s) undertaken to avoid plagiarism in own work. The HEI queried in the current study finds support, as most Belgian university colleges and universities, in the software detection tool TurnItIn. Twenty-one percent of the students is aware of the purpose of this software package, meaning that 79% is not responsive as to why HEIs offer this tool to students. When asking them about their active use of TurnItIn, 42 students (38% of those aware of the purpose of TurnItIn) answered they have at some point already used this tool whereas 69 students (62%) have never used it. Fourteen students (13% of those aware of the purpose of TurnItIn) indicated having adjusted (parts of) their text(s) based on the results of TurnItIn. The results for the actions taken to avoid plagiarism by students are in line with their perception of receiving insufficient advice on plagiarism avoidance.

4 Discussion and conclusion

This study shows that although the HEI provides a description of plagiarism in the Education and Examination Regulations students lack the awareness of what plagiarism entails. Although a majority of the lecturers indicates to have notions of this description, less than a quarter states to have a detailed knowledge of the articles on plagiarism.

Lecturers have a more restrictive definition on plagiarism than students have: in the student survey, only literally copying information, with the exception of photos, music and videos from the Internet, are undoubtedly characterized as plagiarism by a majority of the students, whereas lecturers seem to be more familiarized with the

intricate nature and range of plagiarism. In addition, the majority of the students does not use the plagiarism detection tool offered at the HEI. Instead of being used as the ultimate resort to tackle plagiarism, this tool should therefore be more explicitly incorporated as an educational aid to identify acts of plagiarism in order to increase awareness and to stimulate proactive behavior.

A conspicuous result of this pilot study is that the attitudes of both lecturers and students display very little variation for the SES variables. This finding provides further evidence that the awareness of plagiarism as well as the familiarity with the various facets of plagiarism needs to be enhanced amongst all actors in the HEI.

When taking into account the results of this preliminary survey, it is clear that there is still work to be done to familiarize staff with the infringement that plagiarism is. Currently, addressing plagiarism accordingly is not a priority in the institutional culture. That is, the low response rate and weak enthusiasm corroborate the findings of the IPPHEAE study for Belgium: students, staff members and HEI managers tend to display a lack of interest toward plagiarism. Furthermore, it is conceivable that management and staff might feel threatened by the confrontation of their department with the other departments in the HEI, suggesting a latent awareness that the current situation is far from optimal and in need of improvement. For both students and lecturers the mindset should be turned and tackling plagiarism should become common practice in every HEI, not just in Flanders.

Giving plagiarism the necessary attention in an educational program, focusing on prevention and stressing out the importance of academic integrity needs to be part of HEI policy. Especially when comparing to the results of the IPPHEAE project in other European countries, there is still quite some room left for progress: best practices that emerged from the European project (Sweden, Austria and Slovenia) can be translated and implemented in Belgian higher education.

For future research, the gathered insights of this pilot study can be used and made applicable to a broader audience so that lessons from Belgium can be generalized to and practiced in other countries. It would be interesting to replicate this survey in other HEIs in Belgium and by extension in other European HEIs.

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Appendix 1:

Scenarios perceived justice of fraudulent situations

How just do you find following situations: (from 1 = totally unjust over 4 = neutral to 7 = totally just)

Scenario 1: “You are aware of a fellow student handing in a paper that he/she has received for consideration from another student. Thanks to this paper the fellow student has received a high mark.”

Scenario 2: “The high scoring paper of your fellow student exists for a great part out of copy-paste passages”

Scenario 3: “A fellow student who asked you to look at your draft version of a paper appears to have copied pieces of your work without asking you”.

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STRENGTHENING TEACHER QUALIFICATIONS TO PREVENT STUDENT PLAGIARISM – PRESENTATION OF AN ONLINE COURSE AND DISCUSSION OF A STRATEGY

Mariann Løkse, Mariann Solberg

Abstract:

We¹ believe that the best place to start when addressing the challenges of student plagiarism is to strengthen teacher qualifications and awareness. To reach this end we have developed an online course where we aim to put teachers and supervisors in a position where they can help students achieve better learning and concurrently avoid plagiarism. The course is in six parts, and each part contains texts and short videos, reflection tasks and multiple-choice questions. In addition, we offer optional seminars with face-to-face meetings for accompanying peer learning. In this paper, we present our course and describe our challenges in making it into an interactive and thought-provoking experience for teachers. We further discuss our assumption that strengthening the teacher's qualifications is the single most important measure for addressing the challenges of student plagiarism. Our leading idea is that plagiarism prevention is primarily a means for better student learning.

The novelty of our course lies not in each of its parts, nor in its underlying assumptions and ideas. Rather, it emerges from the combination of the following elements:

- a) Our approach to prevention of student plagiarism as a means for better learning
- b) The resources and learning activities (texts, videos, reflection tasks, multiple-choice questions)
- c) It being an open online course with a pleasant graphic design,
- d) Mandatory for new teachers
- e) The course is, for most participants, done along with workshops and peer learning activities in our teacher development program.

It is our hope that this particular combination of features will substantially help teachers in their dealing with the multifarious task of preventing student plagiarism.

Key words: Preventing student plagiarism; student learning; teacher qualifications; online course; strategy for plagiarism prevention

1 Introduction

From which end should academic institutions start their preventive work on plagiarism? The answer, in an ideal world, would be from all ends. There are at least three possible places to start: Dealing with plagiarism includes making sure that the

¹We would like to thank our colleague Torstein Låg for useful comments on earlier versions of this article. The three of us have developed the content and form of the course together. We would also like to thank Mark Stenersen who has been responsible for all technical aspects of the course, not the least adjusting the platform to our specific purpose. We are also grateful for useful suggestions from two anonymous reviewers.

institution's rules and regulations handle the issue in a clear and sensible manner. Dealing with plagiarism means making sure that all academic staff do their best to enhance the students' learning outcomes, including creating written assignments where Googling the answer is not a viable solution. Dealing with plagiarism is also explaining to students why academic integrity is valuable, and how they can go ahead to achieve this. This article discusses the following question: Why will an increase in teacher awareness and qualifications be the best and most important place to start when the aim is to decrease the number of student plagiarism cases?

Regulations for academic studies at UiT The Arctic University of Norway clearly state that "During the first semester courses, students should receive tuition and advice on information literacy²." For many departments this means sending the students to a lecture or two at the Library. Whilst valuable in itself, this is not enough to instigate a whole new way of thinking about academic work in the minds of the students. There are at least two possible reasons for this. First, library staff may be perceived as having less authority than a lecturer or tutor in the eyes of a student, which could negatively influence the impact of the teaching. Second, unless the library-provided instruction is well integrated with the discipline specific instruction and accompanying written assignments, the students may not easily see where and how to apply their information literacy skills.

In an attempt to facilitate the teacher's job in plagiarism prevention, the University Library, together with the Centre of Teaching, Learning and Technology, have created an online course³ where the aim is to increase teachers' knowledge and competency on the subject. This article presents our specific course and address challenges in making this online open course into an interactive and thought-provoking experience for teachers in higher education. Our leading idea is that plagiarism prevention is primarily a means for better student learning.

By plagiarism, we mean "submitting someone else's work as your own" as defined by Carroll (2007). We have not considered plagiarism in research, media or other areas. Our course deals exclusively with plagiarism in student work.

2 It is about learning, not primarily about morals or law

It has been a prime motivation for our work to turn the discussion on plagiarism from a question of morals, or crime and punishment, to a question of learning. On this, we are influenced by the thoughts of Jude Carroll who has been working on plagiarism and learning for several years. The lost opportunities for learning are our main concern. "When students plagiarise, either through intentional cheating or through misunderstanding what is expected of them, then plagiarism allows that student to bypass learning." (Carroll & Zetterling 2009) The focus on morals and law, on the other hand, makes it all too easy to concentrate on teaching students to learn and obey certain sets of rules for referencing. The implication of this is that as long as

²Regulations for academic studies at the UiT. Adopted by the University Board on 12.12.08 (case S 72/08) in accordance with sub-sections 3-3 and 3-8 of the Act relating to Universities and University Colleges of 01.04.2005 no. 15. http://en.uit.no/utdanning/art?p_document_id=347798&dim=179017

³Deterring Student Plagiarism: A Course for Teachers (<http://result.uit.no/plagiat/en/>)

the student knows how to write a reference and which sources to cite, he or she will be ok. If we as teachers widen the horizon from the student's strict rule-following to enhancement of their opportunities for learning, we will see that we need to go further than just conveying a set of rules. We need to look at the way we form educational programs and specifically the way we form assessments and exam questions.

The drawback of focusing on law and moral is that the reasons why we cite others may be lost out of sight for the students. As researchers, we know that citing others signals to the reader what kind of material we have used as a backdrop and grounding for our own research. The list of references reflects the kind of sources we have chosen, and how well we know our research area. The use of citations is also a way of placing yourself in a particular research tradition. It is a way of telling your readers that you are in fact "standing on the shoulders of giants". Choosing to cite other works is also recognition of the work your fellow researchers have done, and is thus a way of paying your respect to them. The possibility for your readers to check whether your results could be reproduced is vital in research. That your research is accountable, and that your findings are verifiable or falsifiable by other researchers, to some extent, are prime characteristics of good research. All these reasons, in addition to helping the reader to find out more on a particular aspect of your text, are reasons that in our opinion – when conveyed – have a potential for more lasting effects upon the students' academic formation, than the mere "don't cheat!" warning.

We see acquisition of information literacy and avoidance of plagiarism as part of the students' process of Academic Bildung. For a definition of Academic Bildung, we adhere to the double-tracked Bildung-concept and Bildung-pedagogy outlined in chapter three of the book *Academic Bildung in Net-based Higher Education. Moving beyond learning*, (Fossland et al 2015). Solberg and Hansen here describe the phenomenon of Academic Bildung as a developmental process of persons heading toward "something better – a tacit or out-spoken normative ideal, value or vision of ethical, existential, aesthetical or spiritual quality – in an educational setting". When defining the concept as double-tracked, they say that this is "both connected to critical thinking, society-oriented reflection and autonomy, and ethical dimensions of human formation and self-formation, existential- and being-oriented reflection and authenticity". When seen in relation to students in higher education in general, this involves both the critical-emancipatory society-oriented dimension (the strive for autonomy) and the identity formation process (the strive for authenticity) associated with the search for meaning that is specific for teaching, learning, and research in higher education. In short, being familiar with the reasons for avoidance of plagiarism is part of becoming a student with academic values, attitudes and practices. However, successful initiation into an academic culture demands that the more knowledgeable (here: the teachers) are aware of their own values, attitudes and practices and are willing to take on the responsibility as initiators towards the less knowledgeable (here: the students).

3 Why an online course?

Since the course targets teachers in higher education, we knew it would be a difficult job to reach as many as possible with our message. From previous experience, we have

found that invitations to meetings and seminars about issues not obviously connected to the teacher's everyday work will rarely prove successful when it comes to turnout. Printed leaflets were not an option for us either, as we feared these would be overlooked and/or lost. We wanted our institution to have a more long lasting and flexible resource on plagiarism prevention, a course to be a continuous offer, and for this reason, we opted for an open online course.

The course can be taken on an individual basis, at any given time and place, within a reasonable amount of time spent weighed against the most pressing themes needed in such a course.

We have tried to locate other, similar online courses on plagiarism, but almost all we could find are directed at students, not teaching staff. It seems very few institutions have opted for this way of informing educators about plagiarism issues. We have found some, like the Plagiarism Awareness Course for PhD-students at Imperial College London⁴, though this is only available for ICL patrons, so we haven't been able to check the actual content. There are, however, plenty of web sites and policy documents concerning plagiarism and academic integrity, but very few of these deal directly with how to choose teaching methods that deter plagiarism, and if they do, they are usually short and concise. Our course is perhaps not the first of its kind, but as far as we can see, there are almost no comparable plagiarism courses available online today. We hope, therefore, that our course can inspire others to do something similar, and thus produce more data, which might help assessing the effect of this approach on faculty and student attitudes to plagiarism.

However, while open online non-guided courses have specific strengths, like being long lasting and flexible in terms of time and place, they may also have certain weaknesses when it comes to learning efficacy. This may often be due to a passive role for the learner, with few possibilities for real interaction with the thoughts and ideas conveyed, and few possibilities for acquiring and training skills. If the learner further does not have to form his or her own understanding in spoken or written words to other people, we cannot expect too much knowledge construction and attitudinal formation going on in the learner. A lack of feedback from a teacher or facilitator, and a lack of other participants to discuss and share experiences with, is likely to contribute in the same direction. We wanted, however, to make a course that could fit into the time schedule of busy teachers, and we wanted to make a course that could be run without a facilitator and a group of other participants. At the same time, we planned to make it such that we also could offer the course as part of face-to-face teacher- / facilitator-led seminars for groups of academic staff. In this way, the course had to stand on its own, while also being suitable as part of a flipped-classroom model.

There are also other reasons for thinking it important for academic staff, preferably within the same group or department, to work together with plagiarism prevention in student works. As we find that successful plagiarism prevention is a work that needs to be addressed in many ways, on many levels, and through many channels (a holistic approach), we also believe that implementation of a lasting change on this issue will be better addressed collectively than individually. It needs to be instigated as part of

⁴<https://www.imperial.ac.uk/study/pg/graduate-school/professional-skills/plagiarism-awareness-course/>

a culture in each of the local research and teaching cultures at our university (see for instance Roxå 2014).

What more have we done in order to avoid some of the common weaknesses of an open online course in terms of learning efficacy? We have tried to make it an interesting experience through variation of the learning resources, and we vary between texts and video clips. Reflection tasks break up the text and motivate to engage with the thoughts and ideas of the course content. Feedback on the multiple-choice questions provides some interactivity, and so does a case generator activity, where different plagiarism cases are generated and can be reflected upon individually or discussed in groups. A video demonstration of the electronic text recognition program Ephorus show the participants how easy it is to use such a program, reducing barriers for use on the participants' side. Links to other useful resources also encourage a more active role for the course participant. Thoroughly exercising practical skills is however not possible through the course. Still, we think it is important that the teachers become aware of the necessity of acquiring skills in e.g. how to make exam questions that lead students away from plagiarism. Guidance on the basic principles of how to do such tasks is provided by the course.

UiT The Arctic University of Norway promotes free and open access to scientific results. In line with this principle, our course is therefore made free and open for all under a Creative Commons license, more specifically, the Creative Commons Attribution-Non-commercial 4.0 International License. Since the course is bilingual (Norwegian/English), it can be a support for teachers in many more institutions than our own, and perhaps help inspire those who want to create similar resources.

4 Educating teachers: Why are teachers hesitant to report plagiarism cases?

According to Bretag et al. (2011), a study of Australian academic integrity policies showed that 21% of the institutions “placed all of the responsibility for academic integrity in the hands of the students” with only one of 39 universities stating that this is an overall responsibility by all parts involved. This is probably not unique for Australia, and is an example of why HE institutions need to take a broader view of this issue. One way of doing this is to inform and educate academic teaching staff how to integrate academic integrity into their teaching in order to prevent plagiarism.

Furthermore, some academic staff may be hesitant to report plagiarism cases and prefer dealing with it in a way they find most convenient there and then. Where procedures on the detection of plagiarism are unclear or not easily available to the teacher, it takes more of an effort to investigate and report a plagiarism case. Many teachers experience that it adds to an already heavy work burden. Thus, some cases of plagiarism are overlooked, or handled in the easiest way possible with either giving a warning or just grading down the text in question.

Another aspect of the detection process can be that the teacher can believe that a plagiarism case will reflect badly on their performance as teachers. In a study by Sutherland-Smith, “[n]ine of the eleven academics interviewed felt that their colleagues would view detection of plagiarism in the classrooms as a failure on their part to ensure

a suitably stringent learning environment.” (2005) The aim of our online course is not necessarily to have more teachers reporting plagiarism cases, but to give them a tool with which they experience themselves as being competent in deciding which action to take on the suspicion of plagiarism.

5 Our approach and the holistic approach

Among the growing body of literature on plagiarism, we have found surprisingly little research on the way faculty can influence students through their attitudes, teaching methods and written assignments. The literature will mainly focus on what students do or ought to do, and how to teach students academic norms for writing and referencing. Other literature focus on institutional policies and how to handle plagiarism cases, both pedagogically and legally. In the articles that focus on faculty, it is very often their perception of and attitudes to plagiarism that are being discussed. When working with plagiarism from a holistic point of view, we therefore see it as important that the roles and responsibilities of faculty and teaching staff are investigated closer. We believe this paper can serve as a starting point for further explicating this topic.

A holistic institutional approach is necessary because plagiarism is a complex challenge to education that cannot be resolved by the students and the teachers alone, by creating institutional rules and regulations alone, or simply by electronic text recognition programs. One aspect of the holistic approach is making sure students have or gain the skills necessary to do their work according to academic norms of integrity. Another, and equally important, aspect is to make assessments that do not encourage plagiarism. This is partly the responsibility of the teachers, but it must also have a foundation in institutional policies. (Macdonald and Carroll, 2006) An institution needs to take an overall, joined-up and systematic approach to managing plagiarism in order to succeed. (Carroll 2007)

When we have chosen the teachers as targets of our course, it is because we believe a holistic approach to plagiarism prevention is impossible without their engagement. If students are an increasingly diverse group when it comes to age, nationality, social background etc., teachers are an equally heterogeneous group. They are not easy to reach as a group, in the same ways as students or administrative staff. An online course available for everyone at all times was therefore our means to creating a starting point for teachers wanting to develop strategies for redesigning curriculums and assessments which discourage plagiarism. In addition, informed teachers will, due to their status in the academic system, potentially have a great impact on policy decisions in their institutions. Academic staff is in position to give extra force to the need to improve existing procedures concerning plagiarism. When all stakeholders are involved and tackle the various plagiarism challenges from different angles, the results are more likely to “foster a scholarly community based on shared understanding and practices of academic integrity.” (Bretag, 2013, p.3)

The idea of approaching the plagiarism challenge from several directions is also supported in a report by The Norwegian Association of Higher Education Institutions (UHR), which was published at about the same time as we were finishing our course. The emphasis on dialogue between management, administration, library, students and

academic staff is made clear in the introduction. The report further recommends working from the following viewpoints: academic values, learning and legal affairs. They furthermore recommend that all institutions should have plans and procedures which incorporate all these aspects of plagiarism (UHR, 2012).

The fact that the report more or less concludes with the same recommendations as our course, makes us confident that we are on the right track. We see the course as a valuable common starting point for discussions among staff, which may lead to a common and more widespread understanding of definitions of plagiarism, as well as relevant solutions to the phenomenon.

However, research shows that educating people, staff and students, are only one part of an effective approach to the prevention of plagiarism. Institutional change is not easy in slow organisations, or as the slogan goes: Culture eats strategy for breakfast. According to Macdonald and Carroll (2006, p.244), in a holistic approach to plagiarism, “the emphasis is on promoting good scholarly, academic practices rather than focusing on potential problems and channelling all the institution’s energies into deterring through detection and punishment.” Bretag (2013, p.2) argues that plagiarism “is a symptom of a deeply entrenched academic culture that arguably places tangible rewards (grades, diplomas, publications, promotions, grants) above the intrinsic value of learning and knowledge creation”. We take this to indicate that instrumentalist strategies and approaches, led by bureaucrats, are insufficient. We need to connect into the value base of the academy, thus the focus on the academic staff.

6 Course content & description

In the course, we focus primarily on plagiarism as a problem for students’ learning and their future role in the production of knowledge. The objective of the course is to contribute to the teachers’ increased focus on methods that may prevent students resorting to plagiarism, or unconsciously ending up plagiarizing. We argue that in order for the teachers to be able to reach this goal, they need to have the following knowledge, skills and competences:

- understand that plagiarism is a phenomenon with unclear boundaries and culturally determined interpretations and understandings
- know about the common causes of student plagiarism
- know about students’ perceptions of plagiarism and students’ educational needs
- be able to plan and conduct teaching activities that effectively help students avoid plagiarism
- know how to design assignments and exams that guide students away from plagiarism
- be able to detect instances of plagiarism in students’ texts
- be able to make qualified judgments regarding which cases they can deal with on their own, and which cases they should report

The course has six topics. The first explains what plagiarism is, and the second outlines common reasons why students plagiarise. The third and fourth topics deal

with the teaching process, and how to redesign written assignments in order to discourage student plagiarism. The last two parts are about what to look for when checking for plagiarism and what to do on the suspicion of plagiarism. We encourage teachers to go through all six parts, but each part of the course may also be taken independently.

We have chosen to limit the amount of text on each topic to make the course 'doable' for a busy teacher/supervisor. This presented a certain challenge to us and we have worked hard on making the texts focused and to the point.

With kind permission from Jude Carroll, we have also included video clips from one of her lectures at UiT The Arctic University of Norway in 2010. These videos enhance the topics under discussion and the intention is to give a broader understanding of plagiarism.

For one of the videos, we asked nine students why they think students plagiarise. Their answers were interesting and not quite what we expected. Whereas both teachers and librarians have a tendency to think that it is a lack of referencing techniques and poor time management that lead a student to take shortcuts, most students seemed to think it is because plagiarizing is an easy way out. Eight of the nine students mentioned the word easy. Some also suggested it is due to plain laziness. Similar discrepancies have also been noted by others. A survey by Wilkinson (2009) found that students "more frequently indicated wanted a better grade (73%) and too many assignment tasks (56%) as reasons for cheating, whereas staff indicated that it was unconscious and the student was not aware they were doing anything wrong (65%) ...". This is yet another reason for educating academic staff in order to increase their competency in how to prevent plagiarism. Explaining to students why plagiarism is wrong is important, but not sufficient. Designing assignments that do not make cut and paste or plagiarism an easy option is likely to have a more direct and automatic effect.

As an introduction to the course, our vice rector for education has made a greeting to the academic staff of our university, where she underlines the importance of working towards preventing plagiarism in student work and encourage teachers to take the course. This is a strong signal from the university management to academic staff and symbolises how the work with plagiarism is not just down to each individual teacher.

There are some other resources linked to the course, like a FAQ, suggestions for student exercises, and links to other good online resources in Norwegian and English. The resource is built in WordPress and the specific course part runs on WP Courseware. On completion of the course, participants receive a course diploma. This may work as an incentive for teachers who need to document their teacher development activities.

7 Evaluation and development of the course

Eight teachers were given access to the beta version of the course and answered a questionnaire afterwards. Their feedback was invaluable to us in the further development of the course. The immediate response from six of the eight teachers was that this was a useful resource. Other words that were used were 'informative', 'structured' and 'inspiring'. The overall response was very positive from all the respondents. The

feedback revealed that even if the teachers already knew some of the information, they found it made them better equipped to deal with the issue.

Most of the respondents seemed to have understood our main message in the course, being that plagiarism is not necessarily intended cheating, and can be prevented with proper teaching, instruction and other measures. There were areas where the respondents felt improvements were necessary, however. One of their main concerns was the amount of text in some of the parts, which made us rewrite some of the passages to make them shorter and clearer. More examples were also called for, and some more practical information, for instance about using Ephorus. One of the respondents also drew our attention to the fact that the information in the course was solely based on research and our own experiences in the field, and lacked input from what students felt and thought about plagiarism. The respondents' comments were our guidelines in the process of making the course ready for launching. We rewrote some of the text, added some more examples and clarified some of the issues. In addition, we made a video where nine students told us why they think students plagiarise; also, we made a case generator and a video demonstrating use of Ephorus.

Jude Carroll has not only been inspirational in our work with the course, she was also generous enough to go through it together with us at a late stage in the development, pushing us to make it into as much as possible a lively and interactive experience for the participants, and providing us with her own materials and examples to this end.

8 How has the course been used? Who have used it? What can we expect to be the outcomes?

A beta version of the course was first launched in March 2013 and the course was officially completed in August 2013. In September 2013, it was included in the course catalogue for staff at UiT. Since August 2013, we have had a total of 3718 visits. Of these, 1703 are unique users. This means that these unique users have been looking at the course a little more than twice.

Altogether, users have viewed 18 798 pages. Of the total number of users, 486 (13%) have created an account. (This does not mean that they have taken the course, but they have signed up.) In average, each user has seen 5.06 pages, but it is important to be aware that among those who have actually taken the course, the page views will be about twice as high.

The course has a total of 173 users enrolled. 42 (24%) of these have completed and passed the course. Compared with other online courses this is very good. A 10–15% completion rate is usually counted as a good result in an online course. Of the remaining 131 participants, 29 have completed more than half of the course. Of the 173 users, 40 are not from UiT The Arctic University of Norway. Quite a few of these are from other Norwegian institutions.

We have sent out two different types of reminders: one electronic in January 2014, directly from the WP courseware (both to UiT employees and others) to encourage those who had already signed up to complete the course, and the other by creating a flyer/brochure, shaped as a bookmark, which was sent out to all academic staff at

UiT in May 2014 to attract more participants. Both reminders showed a small, but not significant, increase in activity.

In the autumn semester 2014, the course became part of the program in teaching competence for higher education and we see that this is reflected in the statistics by relatively more visits over a period of a few months at semester commencement. This seems to have had a relatively larger impact on the use of the course than the reminders. In the program for teachers, we have asked the participants to go through the online course ahead of the face-to-face course in which this is integrated, then spending one hour for peer learning and discussion.

We have also offered a 2.5-hour workshop on request from one department, where we asked the staff to go through the online course ahead of the workshop, allowing most of the time in the workshop for discussion. We believe a systematic approach along this line could be a good strategic move. The drawback is that it takes rather more effort and time for all involved than the strategy with only the open online course. However, the statistics from the course shows us that we should continue our work for educating the teachers by including the online course in face-to-face sessions. We have so far concluded that an online course could be seen as a part of a flipped classroom approach to learning for the academic staff.

We have not yet had the opportunity, nor the sufficient amount of course participants to rigorously test the course as an educational intervention. Based on what we otherwise know when it comes to learning from open online courses, what can we expect? What will be the outcomes for teachers who complete the course and for their work with students? The short answer is that we really do not expect the world from this course *alone*. Teachers who are above averagely interested in the matter may of course come to take individual action after having completed the course. We believe that it is only when teachers have the opportunity to discuss these issues with other teachers and staff that we can expect some more marked effects. In particular, when and if staff starts working with the issue of plagiarism prevention as a systematic collaborative act, within their relevant groups and departments, we can expect significant effects. Systematic educational development projects carried out around integrated ways of organizing the teaching of information literacy, as well as actual development of learning tasks and exam tasks that make use of higher-order thinking will be a wise next step for effective prevention of plagiarism in student works. Putting the normativity of plagiarism on the agenda is also vital, and we think it is important that this is done by teachers and supervisors, not only by library staff. If the students never hear their closest academic authorities talk about the values of academia, and if nobody connects the main purpose of universities – the production of new knowledge – to avoidance of plagiarism, how can the students be expected to make these values their own and be inspired towards good conduct? In addition, it must be easy for the individual students to do the right thing. When the students also learn how to use sources correctly and cite correctly, when this is a natural part of what they do in assignments, we will be closer to our goal.

The outcome of the course for teachers will be updated research- and experience-based knowledge about student plagiarism. They will have gained insight into some main ways of looking at the problem of student plagiarism, they will have an insight

into common causes of the phenomenon, how the students see plagiarism, how to teach information literacy as part of subject specific courses, how to design assignments that do not invite plagiarism, insight into how to detect plagiarism and how to handle it once it is suspected. The course will hopefully make teachers realize that something needs to be done, and also point them in the right direction. The course can in this sense be the first basic and necessary input on plagiarism prevention in student work, for teachers. The skills required for good practice and the willingness to actually go ahead, however, are not as neatly adopted through an online course.

9 Concluding remarks

It is time to address our initial questions again. Why do we believe that an increase in teacher qualifications on the matter of preventing plagiarism is the best place to start when the aim is to decrease the number of student plagiarism cases at an institution while enhancing student-learning processes? We assume that teachers in higher education already have the academic values and attitudes connected with respect, integrity and general ethics, though their awareness of the problem of plagiarism may need to be increased. However, in order for teachers to act in a way that actually prevent student plagiarism, they need to know the nature of the problem, they need to know how to act and have the skills to do so.

The main reason why an enhancement of the teachers' knowledge, skills and competence in prevention of plagiarism is the most important place to start for preventing plagiarism in student work is twofold. First, they are the ultimate authorities for the students (normative legitimacy), and second, they are the ones who actually – through teaching the students how to avoid plagiarism and through forming and grading exams – have the power to significantly affect student actions (powerful conditioning). Given that teachers actually do talk about plagiarism with students and teach them how to avoid plagiarism (share academic values and attitudes, and show them how to use sources and cite correctly – or send them to library courses in information literacy), and given that they actually do design assignments and exams that guide students away from plagiarism, we believe there are good reason to expect a marked effect in student works. The assumed most effective “channel” to the students – their teachers – will be in use and the measures will be both identity forming and inspiring, as well as more directly conditional.

By including our online course in the program for teaching competence for higher education at our university (new teachers), optional for the participants in the 2014/2015 programme, mandatory from 2015/2016 on, and by offering additional workshops in all departments, we believe that one of the most important measures for a marked change in the occurrence of plagiarism in student work at our university is in place. However, we are committed to a holistic approach, and our continued work for plagiarism prevention at the institutional level will follow this line.

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PERSPECTIVES ON TURNITIN USE IN AN AUSTRALIAN SETTING

David Meacheam, Denise Faifua

Abstract:

This paper reports the results of the 1st round of a qualitative study we have undertaken assessing student and academic views of the use of the originality checking software, Turnitin. The student populations targeted were both undergraduate and postgraduate. The academic population targeted included teaching staff across a range of disciplines. The polling was via email within which respondents responded to both closed and open-ended questions relating to their experiences of and attitudes towards the use of originality checking software. The aims of this study were to critically assess the experiences and attitudes of users (students and academics) of Turnitin and to test the utility of i-Maps in conjunction with formative use of Turnitin as a means to improve student originality. Journal literature relating to student originality and plagiarism was also analysed. This paper reports results from the initial rounds of data gathering. Data handling and analysis was managed with reliance upon Nvivo. The results show that the attitudes and experiences of academics can be readily categorised, student attitudes and experiences much less so. The current round of data gathering aims to bolster the number of student responses, and inform better categorisation of their experiences. A higher level issue that will be touched upon is how both students and academics conceive themselves in a virtual, distance education environment, with reference to Bourdieu's work.

Key words: Originality checking software, formative use; Originality checking software, academic and student views; Originality checking software, attitudes, Australia

1 Background

For the past two years we have been assessing both academic and student views of the use of originality matching software. In the instance of the University that employs us that software is Turnitin. We believe however the insights gained could be equally applied to the use of other systems such as URKUND.

Our concern with plagiarism flows in great part from the experience of one of the authors with their previous employer, the University of Newcastle (Australia). In the early 2000's that University seriously mishandled incidences of plagiarism by students in a postgraduate program in Malaysia (AAP General News Wire, 2005, Cohen, 2005a, Cohen, 2005b). To its credit, the University subsequently became something of an Australian leader in combating non-original work by students; though with the occasional "wobble" (Anonymous, 2011, Branley, 2011, SMH, 2011). We believe the role of the SACO's (Student Academic Conduct Officers) at the University of Newcastle to whom academics referred cases of deficient student writing, was one element in the success of their corrective actions. The methods they applied were not exactly the "public hangings" we have seen advocated in some of the academic literature (Kleiman and Kilmer, 2009), but we are sure the miscreants did talk after they were "thrashed" by the SACO's. The advantage of the crisis at the University of Newcastle was that the faculties had a ready mandate to enforce that all students had the opportunity to

check the originality of their work before the due date for their assignment came. In other words, iterative or formative use of Turnitin was mandated. Our belief is that this approach was central to the success of that university addressing student plagiarism. The number of referrals to SACO's peaked in the first year, radically declined thereafter, and in the very demanding 3rd year classes one of the authors ran he saw Bachelor students researching and writing like Masters students.

Commentators regularly refer to student plagiarism as though it is a single, specific type of action by errant students. It is far more helpful to think of plagiarism as consisting of a broad spectrum or continuum of student actions. Such a spectrum is offered below. At one end of that spectrum are actions such as students paying somebody else to write their assignments for them, or passing of another student's work as one's own. At the other end of that spectrum would be instances of students correctly citing the source of what they have written, perhaps even page numbers, but failing to acknowledge through the use of quotation marks that they have "borrowed" language from that source. In the following work our focus is upon the instances of plagiarism in the centre and right-hand side of the spectrum, which we see as being at best poor technique by the students concerned, or at worst a minor lapse in their judgement.

One aspect of plagiarism that is deliberately not assessed in this work is those instances that arise from students international backgrounds. The issues involved with these students are different in nature, though we believe that the formative approach to Turnitin use can be useful for this student body also.

2 How plagiarism is perceived

One of the problems with the everyday use of term "plagiarism" is that it suggests deliberate action, a conscious attempt to deceive the reader as to the source of ideas. Some definitions though don't distinguish between wilful and unconscious acts: Carroll describes plagiarism as "Passing off someone else's work, whether intentionally or unintentionally, as your own for your own benefit" (Carroll, 2002p. 9, cited by Pickard), (Pickard, 2006). It is these unconscious acts of plagiarism, still tainted by notions of deception on the students' part that are problematic.

As will be shown below in consideration of the spectrum of behaviours considered to be plagiarism, instances of what may be viewed as such misconduct may be far more helpfully construed as poor technique. Also, while plagiarism is seen as theft (Reilly et al., 2007, Sadler, 2007, University of New South Wales, 2013), it is a relatively victimless theft.

The relatively victimless nature of plagiarism may go some way to explain the perceived prevalence of the deliberate practice of this dark art. But, when it comes to the less conscious instances of plagiarism, those at the right side of the spectrum of plagiarist behaviour (see Table 1, Spectrum of plagiarist behaviours, below), it might be more helpful to the debate around plagiarism if those practices were instead characterised as poor academic practice.

The practice of paraphrasing is contentious, not just because it can be so difficult to detect, but also because some of the techniques for writing for both our post-graduate,

but especially our under-graduate students, is the generation of what has been characterised as the production of a “patchwork” of issues or ideas by students (Howard, 1999), asking them to demonstrate that they have read widely and understand the discipline within which they are working. Drawing on a study of research higher degree students, Pecorari makes a case for both some relaxation of standards, more acceptance of certain types of patchwork writing, along with stronger efforts to build understanding of the need for academic integrity in writing (Pecorari, 2003).

One critical view of the whole plagiarism checking and punishment routines so many universities now insist upon is that through the construction of plagiarism policy and procedures, we are simply tightening the boundaries around the “sacred space” that we academics work within. An early commentator, Scollon, (1995) sees the discourse around plagiarism as reflecting what a later commentator characterises as “a particular economic and ideological system, that of Europe at the time of the Enlightenment, and a particular view of authors as manufacturers of texts, but texts as commercial products.” (Larkham and Manns, 2002 p.4). Not only do academics work to protect and enhance their reputations as authors of works, they also willingly support publishers in the exploitation of a market focused on the notion of thought, or ideas, as property. In the terms of Bourdieu (Bourdieu, 1988, Bourdieu, Passeron, et al., 1994, Bourdieu, Saint Martin, et al., 1994), might academics be using the issue of plagiarism as a means of protecting our “habitus”? Within the sacred academic space of research and writing, the most senior and respected authors, through insistence upon correct citations and acknowledgment of previous work, extract “rent” from newcomers to the academic realm. And, it is literally rent, when funding to individual academics and their institutions may be tied to the frequency with which their work is cited, aka the “impact factor” of published works. As with those seeking to become medical doctors, where interns are required to work extremely long hours, and then face examination processes that act more to exclude candidates for entry to the specialist communities, ahead of reinforcing high standards amongst those admitted, might academic insistence upon the “purity” of student writing be nothing more than an exclusion mechanism?

Closely aligned with this is an Australian debate about the massification of higher education. The previous Australian Labor/left government had a long-term target that 40university places. The present (2015) Conservative Minister for Education expresses concern that uncapping university places has led to a decline in standards, an assertion given without any obvious evidence (Lane, 2013, Osborne, 2013). The authors have heard many similar comments from fellow academics in the course of their employment at four Australian universities.

It is debatable whether the current high levels of concern with student plagiarism are justified (Rolfe, 2011, Scanlon, 2003). Common perceptions of high levels of cheating aren’t always well-supported by the evidence, with estimates of the incidence of cheating ranging from as little as 9as 95age (Maramark, 1993). Besides the efforts of commercial originality checking software vendors to create a market for their services, there is a perception that “. . .the technology makes illicit cutting and pasting so easy as to be nearly irresistible” (Scanlon, 2003 p. 161).

Table 1

Spectrum of plagiarist behaviours

Type	Gross academic misconduct	Serious plagiarism	Mid-level plagiarism	Poor academic practice
Student instance	Using a paper prepared by a paper “mill” or “research service”	Copying and pasting from an internet site, journal or book, without attribution	Re-using a paper previously submitted for same or another course of study	Failing to put direct language use in double quotes, while giving the author citation
	Stealing another student’s work and submitting it as one’s own		Co-written papers from students working in groups, papers submitted as individual works	Inadvertent plagiarism, student failing to recognize after edits that the language used is not his/her own
	Finding a work on-line, submitting it for grading as one’s own work.			Failing to identify the source of key ideas used in submitted work
				Patchwork writing

Institutional responses to plagiarism

It is the experience of the authors that very little is done to expressly teach students at university level how to write in what we regard as an academic style. Compulsory systems that endeavour to teach academic integrity can become something of a “tick in the box” exercise for busy students, with little “embraining” of the concepts such programs are trying to convey. While self-help programs to assist original writing are offered, the evidence is that the uptake of these is at best patchy, as few as 36 will take advantage of such self-help programs (Brown et al., 2008).

A number of authors have dealt with addressing the issue of student preparedness for original writing at the university level, (Batane, 2010, Chambliss et al., 2010, Granitz, 2007, Jameson, 2009, Murray and Rowell, 2009), commonly citing the need for specific education to students in expressing themselves originally. A recurrent theme is that we, as academics, need to be imparting the values underlying an insistence upon academic integrity (Chamblisset al., 2010, Maramark, 1993, Reilly et al., 2007, Sadler, 2007).

Such an approach is worthy, but it has its limitations. As Wilhoit notes (Wilhoit, 1994), what students value most highly (friendships, personal career advancement, loyalty to a peer group), may be the source of those students breaching academic integrity. As one author prescribes, what is needed is a comprehensive, organisation wide approach, that “...[includes] transparency, ownership, responsibility, academic

integrity, compatibility with the institution's academic culture, focus on prevention and deterrence and support for and development of students' skills." (Park, 2004 p. 291). That's a very major commitment for any university to undertake, especially when it is composed of a number of schools and their associated disciplines.

The approaches universities may adopt in relation to academic integrity can be broadly categorised as investigative/punitive, deterrent and educative. We elaborate upon these approaches here because they link well to the findings of our research. A table, illustrating the authors' own spectrum of academic/institutional responses to plagiarism is set out in Table 2. The practices employed within these approaches tend to overlap to some extent. An obvious instance given is Turnitin use. While the authors' view is that it can be most valuable as an educative tool, there is no doubt that an institution's use of Turnitin can be a key investigative and deterrent tool, also (Braumoeller and Gaines, 2001, Kleiman and Kilmer, 2009). Each of these approaches to combating plagiarism will now be discussed.

The investigative approach is, as Wilhoit suggests, driven perhaps by outrage at student behaviour (Wilhoit, 1994). The preliminary data from this research also suggests that some lecturers derive some satisfaction from sleuthing (Parry, 2011), and that there is even an evolutionary predilection for us to pursue "cheats" (Fodor, 2000). Standards are broadcast, (apparently) made plain to all students, then originality checking programs, such as Turnitin are used to detect plagiarism, and bring students to account (punishment) for their behaviour. The investigative approach necessarily needs an institutional policy backbone, if it is to succeed. The maintenance of something like a student academic (mis)conduct register is an emerging practice, allowing a tracking of repeat offenders.

Investigation's natural partner is punishment. Punishment typically is underlain by policy, with extreme cases (theft and use of fellow student's papers, the use of paper mills), warranting harsher punishment than poor attribution of sources. The language of so much of the plagiarism literature suggests (and studies confirm) that academics do take the issue seriously but the proof of studies is that when plagiarism is detected, as few as 90 of plagiarists are punished (Burton and Near, 1995, Franklyn-Stokes and Newstead, 1995, Graham, 1994). Why so few students are brought to account for plagiarism isn't clear, but poor institutional guidelines and a lack of integrated approaches to combat the practice are commonly cited as reasons (Graham, 1994, Larkham and Manns, 2002, Park, 2003, Park, 2004, Walker, 1998), and recent Australian instances suggest that some top universities continue to struggle to respond properly to plagiarism (Visentin, 2015).

Deterrence has a lesser overlap with the investigative/punitive approach. What two commentators detail is, in essence, that "a few public hangings" will bring the rest of the population into line (Kleiman and Kilmer, 2009). In an Australian university setting it is not likely that punishment of breaches will be clearly visible to those other than the "guilty" party, but with sufficient notice to students of the consequences of breaching a plagiarism policy, it is probable that a deterrent effect will apply. Even if students don't have access to view their own Turnitin originality reports, it is likely they do take care to pass a largely invisible test (Braumoeller and Gaines, 2001).

There is a range of other deterrence measures that reportedly have effect. One of the obvious means is to pose assessment questions that require highly individual responses from students. With sufficient effort by teaching staff, all students within a course might receive a unique question that still might be assessed within a common framework.

Wilhoit (1994) details other deterrent approaches. One is to require that students submit drafts of their work, so that graders can get insight to the student's process of generating their final work. Another method advocated by Wilhoit is requiring students to submit photocopies of documented materials they used for the composition of their work.

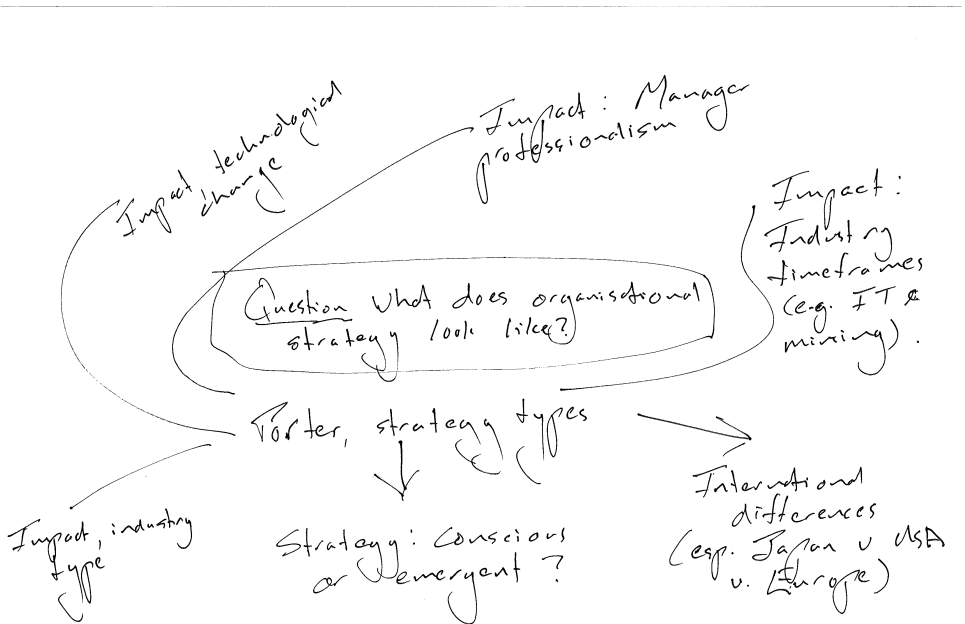
Also available is a more educative approach, usually relying upon specific instruction to students as to how to write original work. One of the problems of the mass education approach (especially if addressed at post-graduate students), is that the instruction given may be redundant. It is quite possible that the students have picked up elsewhere the necessary skills and knowledge. If instruction is given only on a remedial basis, an institution risks stigmatising the students they target, moreover the damage of plagiarism has already occurred.

Within the set of educative approaches are some that show high innovation. For instance, Walden and Peacock (2006) advocate that students be required to submit with their papers an "i-Map", where i = information. This is something of a mind map of how their inquiry into the answering of the question progressed. Not only does this require an original piece of work by each student, it also complements the development of reflexivity, a skill commonly called to be developed within students (Cunliffe, 2003, Edwards et al., 2002, Faifua et al., 2011, Johnson, 2003, Usher, 1996). An example of an i-Map is given on fig. 1.

While the use of i-Maps has been validated (Walden and Peacock, 2006), the formative use of Turnitin has only been lightly assessed (English and Ireland, 2008, Rolfe, 2011). What has been only lightly explored (or, explored and written to the teaching literature), is the combination of formative use of Turnitin along with specific efforts to ensure that students produce original work. Accordingly, the combination of formative use of Turnitin, along with the use of i-Maps to raise the originality of student's work is the focus of our research.

3 Research method

Much of the available literature relating to student plagiarism reports quantitative studies. There is a need for an investigation that is more exploratory in nature to tease out the finer elements of both student and academic experiences of the use of originality testing software suites. Accordingly, our research method has been reliant upon questionnaires sent to students and fellow academics. We posed a series of questions to which respondents can give open replies. We have been analysing those responses with reliance upon NVivo software, to identify emergent common themes within the responses. We have also undertaken analysis of the fairly abundant literature relating to student plagiarism, adopting a critical discourse analysis approach. We have used convenience sampling of both the student and academic populations at our



Campus. We did approach another university to be involved in this research, they declined, perhaps thinking that findings relating to the institution might be critical of their handling of instances of plagiarism.

We targeted a broad range of academics teaching within a broad range of disciplines, ranging from the humanities to engineering and physical sciences. As one of the authors oversees the use of the learning management system and its embedded use of Turnitin within this campus we could readily discern the academics who are allowing formative use of Turnitin and those who don't. Both authors have been advocates of the formative use of Turnitin for a number of years and have influenced many colleagues to adopt the formative approach to Turnitin use.

The formative use of Turnitin simply requires that when teaching staff are setting up a Turnitin assignment they make the choice to 1) allow students to view their originality reports at the time they submit their work, and 2) allow them to resubmit their work up until the assignment due date. This ability for students to resubmit papers enables them to fix mistakes in their attribution of sources. For such an approach to be viable, students need some instruction on interpreting their Turnitin reports.

The questions posed to staff were as follows: Do you allow students to see their own originality reports within Turnitin? Y/N. If "Yes", please you give your rationale for doing so.; If "No", please you give your rationale for doing so.; Do you allow students to re-submit their papers to Turnitin after receiving their initial originality report? Y/N, If "Yes", please you give your rationale for doing so.; If "No", please you give

Table 2

Institutional responses to plagiarism

	Investigation	Punishment	Deterrence	Education
Use of originality checking software	?	?	?	?(?)
Policy statements	?	?		
Compulsory completion by students of an academic integrity course of study		?(?)	?(?)	?
Optional completion by students of an academic integrity course of study			?(?)	?
Guidelines for students to write with integrity				?
Institutional tracking of “offending” students.	?	?	?	

your rationale for doing so.; In your experience, does Turnitin use improve students’ academic performance? Y/N.; If “Yes”, please you give a brief explanation of your experience.; If “No”, please you give a brief explanation of your experience.

The questions posed to students varied according to whether or not the lecturers employed a formative approach to Turnitin use. For the students that were allowed to resubmit their work before the due date of the assignment the questions were as follows: How useful was it to you to be able to see your originality reports within Turnitin?, and Did you use the opportunity to re-submit your work to Turnitin, after you had read your report and realised a need to improve the originality of the language you used?, And finally do you have any other comments re Turnitin use? For those students in classes where formative use of Turnitin was not allowed, the questions were adjusted accordingly. One of the complicating factors in the instance of survey students is that most of them have had experience of lecturers who employed both approaches, that is to say most students had experience of formative use of Turnitin and of courses where formative use was not allowed.

These question types generated quite extensive written responses from both teaching staff and students. Those responses were then analysed with reliance upon NVivo software.

The testing of the utility of i-Maps was conducted in an undergraduate course being delivered to Australian Defence Force cadets and midshipmen at the Australian Defence Force Academy. 92 students submitting tutorial papers over the past 2 years have been required to also submit what many people would recognise as “mind maps” of how they went about constructing those papers. Students were allowed to submit their i-Maps in either longhand form or in the diagrammatic form produced on a PC. In either instance the result had to reflect the content of the paper they have submitted

4 Results

In relation to the email survey of students and academics, to date, extensive responses capable of delivering analysis have been received from 28 academics at this Campus. As those responses can be readily characterised in the forms discussed below in this paper, further input from academics is not now seen as warranted. One outlying type of response that doesn't fit well in the analysis below is where academics have indicated that they don't allow students access to the originality reports at any stage for fear of them being frightened that they may have transgressed. This may be characterised as a fairly paternalistic/maternalistic view.

On the other hand, the polling of students is ongoing, as the diversity of responses is so large and there is relatively little congruence between the key messages or themes of those responses. In relation to the use of i-Maps, responses have been received from 92 students (all undergraduate) over the past 2 years. In relation to the survey of student views of Turnitin use, to date 23 responses have been received, mostly from postgraduate distance students. About 80 Australian Defence Force; the flavour of most of those responses is fairly legalistic, reflecting perhaps the process driven and legalistic nature of these students' workplace environments. We acknowledge that these very specific characteristics of our student population mean that our findings may not be readily extended to other student bodies, in particular to the experience of international students at other universities.

What is notable of the responses from both teaching staff and from students is the firmness with which views of the use of Turnitin are expressed and the obvious passion of the expression of those views.

4.1 Student responses

Student responses to the use of i-Maps have been positive. When asked of their use, typical responses include "the i-Map has been useful for me to organise my thoughts," and "by using an i-Map I have been better able to understand what I needed to reference within my paper". The tutors receiving the i-Maps report that the originality of the works they are grading has improved relative to the teaching of the course in previous years.

In relation to Turnitin, one typical student response was "I am of the opinion that by having it there as an option to look at, then there should be no excuse for plagiarism and that the defence of "it was an accident" cannot be used, because it is clearly evidenced and you have ample opportunity to correct it." Another responder noted "with [formative use of] Turnitin I have a chance to slap my forehead and make changes, instead of being accused of plagiarism, being kicked out of uni". A further response reflected annoyance at the inconsistency of practice of Turnitin use within a School, with some courses allowing resubmissions and others not even allowing students overview of the originality of their work, "I was conducting courses through the School of [XXX] I found that their use of Turnitin was far less robust with one of the courses not even offering a report". Many expressed enjoyment of formative use of Turnitin "[formative use of Turnitin] made the submission process much easier and less stressful", and "Using the originality report, I can view the highlighted areas that

have been used to justify my arguments. It has actually helped my writing skills as I identify improved referencing skills”.

4.2 *Teaching staff responses*

In the instance of those academics who do allow formative use of Turnitin, the following response is typical “I am strongly in favour of presumption of accidental plagiarism” and “[to not allow formative use of Turnitin] would be inconsistent with my philosophy that assessment is part of learning, not just a test of learning. I want students to reflect on the originality report as part of learning how to communicate effectively - a key graduate attribute”. Another response was “[formative use of Turnitin is] about them learning, not me punishing them for not being perfect the first time”. Another teacher responded noting “[Turnitin use is] . . . a relatively blunt approach to assessing student work and can lead to misperceptions and unnecessary worry for students if they consider their score too high” and “Allowing resubmissions until the due date allows a gradual process of improvement, . . .” Another academic responded “This rationale of “unintended plagiarism” supports the use of Turnitin as a learning system rather than as penalty system”, and “My experience has been that students really enjoy being able to self-assess and then to correct their referencing style.” A very senior and experienced academic reported “A very large number [of students] appreciated the opportunity to be treated as adults rather than potentially naughty children!” Finally, one exasperated academic responded that despite the availability of formative use of Turnitin, students: “. . . are still plagiarising, in greater numbers, and more stupidly than ever”.

Amongst those academics who don't allow formative use of Turnitin, the following response was typical: “We only need [students] to see [originality reports] if we decide there is a problem. The problem with the current unscreened [Turnitin use] version is that students who see it and are not at risk can panic.” Another academic responded very frankly as follows: “They never see the originality report unless there is a problem with it, so it doesn't have any opportunity to improve their performance in my courses.” Also, from another academic respondent “I dislike the use of plagiarism software and believe that university culture is ill-served by such technology. This is an ethical argument. Also, the use of this software only teaches real crooks how to lift their game and get away with it while it imposes a cost on the rest of us: efficiency and effectiveness argument.” A fear commonly expressed by teaching staff is that through recurrent “tweaking” of language, students might be able to “game” the system: “I do not wish to engender the culture of testing the system through small changes to determine its tolerance limits.” Another response was “I don't want students wasting their time trying to reduce their similarity percentage just for the sake of it.”

4.3 *Analysis of the literature relating to plagiarism*

Analysis of the literature relating to plagiarism is on-going; a provisional discussion has been given above in the “Conceptions of plagiarism” part of this paper. Our perspective is that the commentaries on plagiarism are predominantly punitive in their views, and reflect Bourdieusian “rent seeking”. One author who has addressed dealing with plagiarism with a formative approach to originality checking software is Vivien

Rolfe (2011). She asks “Can Turnitin be used to provide instant, formative feedback?” Reporting a study of an intervention with a class of 76 students, her general response was “yes”, but with a lot of qualifications. For instance, Rolfe found that the optional training in effective academic writing offered to the intervention group wasn’t widely taken up. Nor online advice in how to interpret Turnitin reports, the resource was seen as deficient, and not used by many students. Using a fairly limited sample (a single class); Rolfe identifies a need to integrate the formative use of Turnitin with other mechanisms to improve student originality.

5 Analysis

For those students who are allowed to see their originality reports, what we have found that is notable is that student responses have largely been along the line “this has really helped me in making sure that my expression is either original, or that the sources I’ve used have been properly attributed”. We would largely classify these responses as showing that students appreciate the chance to use Turnitin to build their writing skills. Others used our survey as an opportunity to criticise the inconsistency of academics as to whether or not they allowed students to see their draft Turnitin reports. In itself this raises a legalistic argument in favour of a consistency of approach by our University (or any university) in relation to the formative use of Turnitin. Several students made the point that if we as an institution make plain our referencing requirements, (again, a legalistic view), then the formative use of Turnitin is the fairest way for them to be sure that they have met those requirements. Any other approach is reminiscent of Kafka’s “The Trial”.

One of the notable characteristics of the respondents who didn’t allow formative use of Turnitin was that they overwhelmingly taught in the areas of humanities and social sciences. In the analysis given below, these respondents tended to fit within the “gotcha” camp.

In the instance of academics the responses we received are remarkably varied, aligning with the diversity of the literature relating to plagiarism detection and prevention. We see academic views as sitting in the following broad “churches”.

First there are the denialists. Denialists believe either that 1) the body of students they teach are highly moral and wouldn’t commit plagiarism, or 2) that the assignments they set have such demands that plagiarism is impossible for any student to commit, or 3) (more rarely), the incidence of plagiarism is so minor that it is not worth addressing. In relation to the denialists who believe that their students wouldn’t plagiarise, we work at a defence academy, all of our undergraduate population and the majority of our post graduate population are direct employees of the Australian Defence Force. Modern recruitment of midshipmen and cadets focuses upon personality attributes that in effect should minimise the incidence of corrupt behaviour such as deliberate plagiarism. Unfortunately, this effect is not always apparent. In relation to the belief by some denialists that the assignments they set are not open to being plagiarised, collusion between students in addressing the assignments and sharing language surely remains a problem; moreover some of the online services offering to complete assignments seem to be capable of addressing their minds to any assignment type. The

argument in relation to the 3rd point, that the incidence of plagiarism is so minor that it is not worth addressing, is a difficult proposition to respond to. The estimates of the incidence of plagiarism range from as little as 9% previously noted, most studies assessing the commonness of plagiarism occurring at the early part of the Internet age (Maramark, 1993). The presumption now is that "...the technology makes illicit cutting and pasting so easy as to be nearly irresistible" (Scanlon, 2003). Compounding the issue of assessing the commonness of plagiarism is the emergence of the various services designed to address the problem, such as Turnitin. A lot of higher education jobs now focus upon addressing and heightening student originality, few of those higher education employees would argue that the problem is minor. Just as the computer virus protection industry would die without the continuing threat of viruses, so the originality checking systems are highly reliant upon a perceived problem of widespread plagiarism.

Second are the "gotchas". These are the people who enjoy the chase, catching students out and punishing them for their misdemeanours. Indeed there seems to be an evolutionary predilection for us detecting "cheats" (Fodor, 2000, Parry, 2011, Purdy, 2005). A typical "gotcha" comment is: "It goes without saying that iterative [multiple] submission to Turnitin is a powerful tool in the hands of students who simply choose to cheat". The "gotchas" are perhaps driven by a deep sense of offence at what they see as immoral behaviour on the behalf of students. This deep sense of offence is well evidenced by the language of so much writing relating to student plagiarism, with laden terms such as "theft" and "cheats" (Faucher and Caves, 2009, Graham, 1994, Head, 2006, Marsden et al., 2005, Patel et al., 2011, Reilly et al., 2007, Sadler, 2007, Smith and Cervini, 2003, Sterngold, 2004, Williams et al., 2010). While most authors implicitly recognise the broad range of plagiarist behaviours, sometimes acknowledging those incidences on the right-hand side of the spectrum given in this paper, the prevalence and endurance of terms such as "theft" and "cheat" when examining plagiarist student behaviour casts a pall of moral outrage in the response to all types of non-original language use by students. It is this moral outrage that underlies so much of the writing in relation to plagiarism, giving rise to sometimes worthy prescriptions of actions designed to heighten student integrity. Associated are the efforts to inculcate within the student body higher levels of integrity and the development of values (Chamblisset al., 2010, Maramark, 1993, Reilly et al., 2007, Sadler, 2007). Our experience is that the "gotcha" camp is the natural home of academics who resent the massification of higher education and what they see as the steady erosion of standards within higher education. In Bourdieusian analysis this is the academic population that is most likely to endorse the rent seeking that lies at the heart of the requirement to properly reference sources.

Third are the skill builders. These academics are usually great advocates for the internal systems most higher education institutions develop to help students develop their own referencing skills, despite the evidence that the use and effectiveness of these tends to be very minor (Rolfe, 2011). Some of these academics see that with what is termed the "iterative" use of Turnitin, that is to say the chance to read their originality reports, amend their work and resubmit it, the students develop better means of identifying the bases of their arguments.

Fourth are the “legalists”. When we need to explain what the legalist approach is like, we make a comparison with our country’s tax system. We find it to be a useful analogy, in part because the language is very much the same. So, in the instance of filing a tax return we make claims for expenses that need to be substantiated by evidence (most commonly, receipts). Those claims for expenses will either be allowed or denied on the basis of 1) conformity to the taxation rules, and 2) the adequacy of the evidence in support of the claim for the expense. Thus, in the instance of students writing, the approach is to spell out for students all the standards of what constitutes originality in their work and how to attend to the attribution of sources, and then reward with grades those who conform best to those standards. It can be that simple.

6 Discussion:

Our work is on-going. While we accept that Turnitin and other originality checking suites cannot be “magic bullets”, (Warn, 2006), at the heart of our investigation is the fairly simple proposition that perhaps a consistency of allowing formative use of originality checking systems, coupled with the use of something as simple as i-Maps, might produce the needed behavioural changes needed in our student populations. This is presuming that any institution has a backbone of policy and practice that supports action in relation to plagiarism. Instances of successful approaches include deployment of student academic conduct officers responsible for helping dealing with “plagiarists”. We are finding that it is the combination of the skill building and legalist approaches that tend to yield the best results, the use of i-Maps identified above needs to be coupled with formative use of Turnitin and some specific instruction, probably at the course rather than the program level, as to why we require accurate identification of sources. Especially in relation to the use of i-Maps as a device to drive original expression of ideas amongst our students, we see a need in the future to switch our research to a more quantitative approach.

The issue of “correcting” the writing behaviours of some international students is doubtlessly more complex. Part of the reflexivity that we as academics need to develop is that perhaps what we see on their part as being plagiarist behaviour, with poor attribution of sources, might instead be homage to those authorities. That issue is probably best left to other authors. Also, we may need to reconsider the enormous cultural shift that we expect from some international students in relation to intellectual property. We expect such major change in the performance of international students, without considering what sort of changes we (native Western academics), should be making within ourselves and with our teaching practices.

At an institutional level, when trying to run a productive debate in relation to these issues we see a strong need to develop language in that debate that is constructive. Using blanket derogatory terms such as “deceit”, “cheat”, “steal” etc. injects a very dysfunctional element to the debate. That frustrates progress. One of the hard lessons of the massification of higher education is perhaps that we do need to develop more tolerance for lesser performing students, and some acceptance of patchwork writing.

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STYLE ANALYSIS FOR SOURCE CODE PLAGIARISM DETECTION

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Abstract:

Plagiarism has become an increasing problem in higher education in recent years. A number of research papers have discussed the problem of plagiarism in terms of text and source code and the techniques to detect it in various contexts. There is a variety of easy ways of copying others' work because the source code can be obtained from online source code banks and textbooks, which makes plagiarism easy for students. Source code plagiarism has a very specific definition, and Parker and Hamblen define plagiarism on software as "A program that has been produced from another program with a small number of routine transformations". The transformations can range from very simple changes to very difficult ones, which can be one of the six levels of program modifications that are given by Faidhi and Robinson. Coding style is a way to detect source code plagiarism because it relates to programmer personality without affecting the logic of a program, and can be used to differentiate between different code authors.

This paper reviews a number of publications which report style comparison to detect source code plagiarism in order to determine research gaps and explore areas where this approach can be improved. A summary of the plagiarism techniques in which style analysis can help identify plagiarism is presented.

Key words: Source Code Plagiarism Detection, Style Analysis, Coding Style

1 Introduction

Plagiarism has become an increasing problem in higher education in recent years and researchers have shown that plagiarism is increasing (Hammond, 2004). One of the reasons is that technological advances have changed our lifestyle and the way we seek information, and we have become more reliant on computers, the Internet and web search engines to find answers and seek more information about almost anything. This in turn has made us more dependent on these facilities. In the context of education, traditional education today is complemented with online resources, web classrooms and easy online access to references, which provide various incentives for plagiarism.

Plagiarism is reusing, copying or paraphrasing somebody else's work without making proper reference to the original author, or by intentionally attempting to make the plagiarized work appear to be original (as in the case of student plagiarism). Hannabuss (2001) defined plagiarism as "the unauthorized use or close imitation of the ideas and language/expression of someone else". There are various forms of (text) plagiarism and Martin (1994) clarifies plagiarism from an ethical point of view and identifies six plagiarism forms: (i) word-by-word copying; (ii) paraphrasing; (iii) plagiarism of a secondary source; (iv) plagiarism of the form of a source; (v) plagiarism of ideas; (vi) authorship plagiarism.

Source code plagiarism has a very significant definition and Parker and Hamblen (1989) defined software plagiarism as "A program that has been produced from another

program with small number of routine transformations”. The transformation can take place from very simple changes to very difficult ones, which can be one of the six levels of program modifications that are given by Faidhi and Robinson (1987). The range can be listed as follows, where each level includes the modifications included in the previous levels: level 1 – changes in comments; level 2 – changes in identifiers; level 3 – changes in declarations; level 4 – changes in or additions to adds redundant statement or variables; level 5 – changes in the structure of selection statements; level 6 – changes in decision logic.

There has been significant research on how to identify source code plagiarism. For example, packages have been developed using both syntactic and structural language-dependent plagiarism (Bowyer and Hall, 1999; Prechelt et al., 2000) and other techniques such as latent semantic analysis (Cosma and Joy, 2012). The student perspective on source code plagiarism is also an important factor when prevention strategies are being considered. For example, Joy et al., (2010) studied source code plagiarism from a student perspective by conducting a survey on a sample of computer science students in 18 UK universities.

One way of source code plagiarism detection is to detect the authorship of the code from the way the code is written, the “coding style”, which may be derived from coding conventions (sets of guidelines for a particular programming language, perhaps defined for use by a particular institution or company). These conventions usually cover such aspects as file organization, indentation, comments, declarations, use of white space, naming of variables, programming practices, programming principles, programming rules of thumb, and architectural best practices.

According to Kernighan and Plauger (1978) the coding style of a computer programs should not only satisfy the personal programmer style, but also promote readability by humans. Different programming languages have different coding styles, for example a C language style may not be appropriate for the BASIC programming language, but generally the types of rules are common between programming languages.

According to MacDonell et al. (2002), source code style analysis can be used for the purposes of: (i) author identification; (ii) author characterisation, to determine some programmer characteristics for a piece of code; (iii) plagiarism detection, to find similarities between sets of code without referring to the original source; (iv) author discrimination, to determine whether code is written by one programmer or many; and (v) author intent determination, whether characteristics of a fragment of code are deliberate or accidental.

The paper is organized as follows. In section 2 we present a review of work on the use of coding style as a technique to identify source code plagiarism. In section 3 we compare the contributions to the field and suggest possible gaps in our understanding of the effectiveness of the technique, and in section 4 we summarise our findings.

2 Literature Review

Seven main approaches to the use of coding style have been applied

(1) Oman and Cook (1989) used typographic or layout style – that is, the formatting and commenting of source code which does not affect the execution of the program

(Oman and Cook, 1988). Pascal source code was used to test the approach on three algorithms presented in each of six computer science textbooks, and a style checker has been designed based on a protocol mechanism which identified, for example, whether comments are lined, blocked or occur after keyword, and the use of upper case, lower case and underscores in attribute names. On the other hand, style analysis checks, for example, whether inline comment on the same line as source code, blocked comments (two or more occurring together) and lower or upper case characters only (all source code). For each condition they apply a Boolean value which is true to denote the presence of that characteristic in the code, otherwise it is false.

(2) Spafford and Weeber (1993) explained source code features which might identify the author of the code and refer to their work as software forensics. They divided the analysis of the code into two different parts: analysis of the executable code and analysis of source files. The executable code analysis targets: (i) data structures and algorithms; (ii) compiler and system information; (iii) programming skills and system knowledge; (iv) choice of system calls; and (v) error handling. The source files analysis contains: (i) the programming languages used; (ii) the formatting style chosen; (iii) special features, such as special environments required by some compilers; (iv) comment style, which varies from writer to writer, (some coders tend to not write anything); (v) variable naming style, including length and capitalization (etc.); (vi) mistakes in spelling and grammar in variable names and comments. Use of language features, scoping, execution paths, bugs and metrics are also highlighted as features to be considered in source file analysis. However, no evaluation is reported in this paper.

(3) Krsul and Spafford (1997) reviewed the literature on identifying the author of a program, and noted that there are three communities which benefit from authorship identification techniques, namely the legal community, the academic community and industry.

A taxonomy of sixty metrics was created, including metrics, style rules and best practice, derived from several sources. These sources include: 236 style rules identified by Oman and Cook (1991), the complexity metrics listed by Conte, Dunsmore and Shen (1986), the 70 programming rules noted by Kernighan and Plauger (1978), van Tassel's (1978) book chapter on readability and programming style, Ranade and Nash's (1993) style rules for C, and Ledgard's and Tauer's (1987) list of C "programming proverbs" that contribute to programming excellence.

The large number of rules was further distilled into three main categories: (i) layout metrics, such as white space use and placement of brackets; (ii) style metrics, such as comment lengths and average variable lengths; and (iii) structure metrics, such as average function length and usage of common data structures.

The extracted features were used by a software analyser program, which was tested on a total of 88 programs authored by 29 students. Using the discriminant analysis statistical approach a subset of metrics was chosen to classify the programs by author, with a reported accuracy of 73%.

(4) Kilgour et al., (1998) used a fuzzy logic approach to capture more elements of authorship (fuzzy logic is a form of many valued logic). They identified two kinds of metrics. The first is quantitative, which presents the numerical variables, and includes proportion of blank lines, proportion of lines that are or include comments, and

average length of identifiers. The second is qualitative, which measures the fuzzy logic variables, and includes braces on separate lines, the degree of indentation used and meaningfulness of identifiers. The fuzzy values are presented as never/almost never; occasionally; sometimes; most of the time; always/almost always. An experiment was performed using 8 C++ programs for the purpose of illustrating how fuzzy logic metrics could be defined.

(5) MacDonell et al. (1999) focused on the area of developing models to discriminate between authors. Feed-forward neural networks, multiple discriminant analysis and case based reasoning are 3 techniques for authorship discrimination which the authors apply to a collection of 26 metrics which has been captured by the IDENTIFIED tool (Gray et al., 1998; Sallis et al., 1998) from a collection of 351 C++ programs by 7 authors. The experiment results archived 88% classification accuracy in case based reasoning and 81.1% accuracy with the other techniques.

(6) Ding and Samadzadeh (2004), used the Krsul and Spafford (1997) categorisation of coding rule: layout, style and structure to organise candidate metrics. These metrics are used from 3 different resources (Krsul and Spafford, 1997; MacDonell et al., 1999; Gray et al., 1998). The authors tested 255 Java programs from 46 authors using discriminant analysis for classification and achieved 62.7% accuracy

(7) Burrows and Tahaghoghi (2007) described a system that uses an information retrieval approach for source code attribution, based on source code tokenization. The source code is tokenized and instead of software metrics, n -grams (contiguous sequences of n items) are indexed in a search engine. An experiment using 1640 student programs written in C could identify the true author with 78.78% accuracy.

(8) Ohno and Murao (2008) used simple tokenised coding style rules for Java source code categorised in three token groups: (i) basing point tokens, such as opening and closing braces; (ii) identification tokens, such as single and double spaces; and (iii) other tokens, such as reserved words and identifiers. The authors proposed a new method called Coding Model (CM) which based on the Hidden Markov Model (HMM) that quantifies the features based on student's coding style (Ohno and Murao, 2009). They conducted an experiment using Java code, which confirmed that the coding models can distinguish between source code produced by different students. Also, they proposed a combined method that measures the similarity among programs by SIM (Similarity measurement), which is a structural method that measures the similarity between two computer program by reducing the parse trees of the code to strings, then applying a string matching algorithm to find common token sequences (Gitchell and Tran, 1999). The authors expect the combined method to reduce the number of false positives detected (Ohno and Murao, 2011).

(9) Shevertalov et al. (2009) described a novel method for author attribution based on source code discretization, which is the process of transferring the continuous metrics and equations into discrete counterparts. For example some developers tend to use verbose language to write a comment in the source code, so instead of counting how many characters, words or lines they have used, the lengths of comments are categorised as short, medium and long. An optimum set of discretized metrics is identified with the help of genetic algorithms, which are adaptive heuristic algorithms

informed by the process of natural selection (Shevertalov et al., 2007), and the system has been evaluated with a dataset of 75 000 Java source code files from 20 authors.

(10) Arabyarmohamady et al. (2012) proposed a coding style plagiarism detection framework, which performs the detection in two phases. In the first phase a compact representation is produced of the code, and in the second phase the extracted attributes are input into three different modules to detect the plagiarised code and to determine the authorship. The system was evaluated on 120 student assignments in C/C++. There are three main findings in this paper: first, the system is fast and can work on large datasets since the two phase approach creates a feature file for each document to reduce the time. Second, the framework provides a method to detect the original author and the user of the code. Last, the framework is capable of detecting plagiarised documents which have been copied from internet or implanted by third party.

(11) Bandara and Wijayarathna (2013) presented a new source code author identification system based on an unsupervised feature learning techniques. The system uses nine source code metrics, each of which is then tokenised, and an unsupervised neural network technique called Sparse Auto-encoder (Bengio, 2009) is used to extract features which finally train the Logistic Regression supervised learning algorithm (Bishop, 2007).

They used in their experiment 5 large datasets, with java programming language. The result of their evaluation failed when there are more than one author, but succeeds to identify the single authors.

(12) Caliskan-Islam et al, (2015) investigate a new method to classify author's source code, using machine learning. First they start with parsing the source code then secondly, define some different features to represent syntax and structure program code. Thirdly, a random forest classifier (Breiman, 2001) trained for classification. Google Code Jam is an international programming competition and they used their code for the evaluation which achieved the results of 95.33% using 2250 C++ programs.

3 Results and Discussion

The contributions discussed in this paper represent work which has taken place over a period of 20 years. Although the approaches taken superficially appear similar (the act of measuring coding style is closely related to attribute counting), the approaches taken are distinct. Although (1) and (3) simply employ attribute counting, (1) focuses on the existence of particular attributes whereas (3) counts instances of features. Approaches involving the application of algorithmic techniques taken from elsewhere form a major theme, such as the fuzzy logic approach in (4), discriminant analysis in (5) and (6), n -grams in (7), Hidden Markov Model in (8), discretization in (9), neural networks in (11) and random forest in (12). The analysis of executable code is possible in addition to source code, as demonstrated in (2), and in (10) an optimisation approach allows the analysis of large data sets.

However, with the exception of (9), the evaluations reported in these studies are modest. Whilst all the authors who have implemented and tested their systems report some degree of success, there are insufficient data to compare the different approaches with any degree of precision.

Table 1

	Language	Evaluation dataset size	Principle Method	Year
1	Pascal	18	Existence of style attributes	1989
2	C	0	Analysis of both source code and executable code	1992
3	C	88	Categories of style metrics	1995
4	C++	8	Fuzzy Logic	1998
5	C	351	Discriminant analysis and case-based reasoning	1999
6	Java	255	Discriminant analysis	2004
7	C	1640	N-grams	2007
8	Java	20	Tokenization and Hidden Markov Model	2008–2011
9	Java	75 000	Discretisation	2009
10	C/C++	120	Two phases of analysis (and optimisation)	2012
11	Java	5 datasets	Neural network and logical regression	2013
12	C++	2250	Random Forest	2015

The literature review of coding style for the purposes of plagiarism detection has revealed a wide variety of algorithms which have been used in conjunction with the raw attribute counting normally used to measure coding style. Most of these approaches have been evaluated with relatively small datasets, sufficient to evidence that they have some degree of effectiveness.

However, with perhaps a single exception, no substantial evaluation of any individual approach has been performed, and no detailed comparative study has been published.

4 Conclusion and Future Work

This paper reviews a number of publications which report style comparison to detect source code plagiarism, and identifies research gaps and explore areas where this approach can be improved.

Style analysis to detect source code plagiarism has been discussed through a literature review where language, evaluation dataset, methods and year of publication has been the main points considered.

These results are not conclusive and further research needs to be done with more evaluation datasets and different techniques. Further research will focus on how big datasets can impact on the final results of using different methods to establish authorship, and how Integrated Development Environment (IDE) code formats and the use of automated code generators can affect authorship detection.

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ADDRESSING PLAGIARISM THROUGH FORMAL AND INFORMAL REQUIREMENTS IN SCIENTIFIC JOURNALS: EMPIRICAL FINDINGS FROM JOURNALS PUBLISHED IN LITHUANIA

Aurelija Novelskaitė, Raminta Pučėtaite

Abstract:

Scientific journals are primary resources where specific forms of academic misconduct (e.g. (self-)plagiarism, “salami slicing” etc.) are defined and which maintain the control function of misconduct by review procedures. However, there is little empirical research how scientific journals actually work to prevent academic misconduct and, particularly, plagiarism. Therefore, this paper attempts to make a contribution at the discussion of academic community’s control and self-control reducing plagiarism through (international) scientific journals published in Lithuania. Empirically, the paper is based on quantitative and qualitative content analysis of the data collected in autumn 2014: (a) Lithuanian scientific journals’ ($N = 266$) requirements for authors ($n = 219$ found available at journals’ websites); (b) semi-structured interviews with chief editors of the journals ($n = 25$). More specifically, the analysis is focused on the topic of plagiarism as it is presented in the journal requirements and as it is discussed by the editors. Quantitative content analysis of the requirements shows that most journals specify the rules for citation but just few (i.e. 6 or 3% of all analysed) mention plagiarism; self-plagiarism is mentioned just by one journal. Meanwhile qualitative content analysis of the interviews reveals different attitudes and practices among the editors: plagiarism detection systems are used by some journals but others have no resources for buying them; plagiarism-related questions are discussed in some editorial boards informally but some journals keep the position “there is no problem”; some editors insist that detection systems are a perfect instrument for disclosing cases of plagiarism, meanwhile others are sceptical about efficiency of electronic systems and claim that “a good reviewer is the best detector of plagiarism”. In general, the editors suggest that the “number of plagiarism is decreasing” and it “appears because of the lack of knowledge”. The paper concludes with a discussion of the role of scientific journals in plagiarism prevention, considering the tools which can address the gaps left by journal requirements and editors’ attitudes.

Key words: editors; journal requirements for authors; plagiarism; science culture

1 Introduction

It is widely known that plagiarism (in addition to fabrication and falsification) is one of the main forms of unethical behaviour in science and as such relates to a number of other issues of scientific work (Goodale 1938; Masterson 1940; Parker 1945; Chester 1949; Furtado 1950; Jameson 1993; Martin 1994) as well as raising a series of challenges to various actors in the field of science, e.g. journal editors and members of university councils, research funding institutions, researchers and their students, etc. (Seadle 2009; Phillips & Horton 2000; Shahabuddin 2009; Walker 2010). It is so because plagiarism is a rather multidimensional matter. That is, it covers a number of forms (e.g. copying, parallelism, duplication, etc.) (Kitchin & Fuller 2005: 32–36), which

might be more or less typical of different groups of actors and in different fields of science. Moreover, although most of the plagiarism practices are treated as unethical and are punishable, some of them (e.g. unconscious plagiarism or cryptomnesia (Merton 1973: 402–3)) are not. Furthermore, not only others' work can be plagiarised; wasteful publications including "salami slicing" and self-plagiarism (Huth 1986) are among unethical practices limiting progress in science (Carver et al. 2011: 124–126).

Although plagiarism (as well as many other unethical practices in research) can be predetermined by institutional factors such as pressure to demonstrate academic accomplishments by a number of publications (known as "publish or perish" effect, e.g. Pedersen 1998; Bennett & Taylor 2003; Jones 2003), there are numerous efforts from various legislators, editors and research communities to prevent such practices (Christodoulou 2008:114), e.g. by publicizing plagiarism cases after they are detected (Smith 1999:778) and prohibiting plagiarists' publications (Shahabuddin 2009), using internet-based checking systems or specific software, asking authors to sign authorship licences (Carver et al. 2011; Shahabuddin 2009), etc.

Most studies on plagiarism, its forms, causes and outcomes as well as related practices were accomplished in the USA and Western European countries. However, the phenomenon has been little empirically explored in East European context. This context is of specific interest because of quite widespread practice of diverging normative requirements and factual requirements (Pučėtaitė & Lämsä 2008). Hence, this paper aims to address the gap in the respective studies by discussing empirical findings from a study on academic community's efforts to control quality of scientific research by inspecting ethical issues in scientific publications in Lithuania. More specifically, the paper concentrates on the practices dealing with plagiarism in (international) scientific journals published in Lithuania. In this respect, authors attempt to add to a discussion on science culture which tolerates (or not) plagiarism, in particular highlighting the role of journals editors.

It should be noted that the paper is a result of a larger research project "Academic authorship: normative definition and empirical reality" (funded by Lithuanian Research Council, no. MIP-082/2013) carried out in 2013–2015 and an extension to an empirical research project "Scientific research ethics in Lithuania: the status of art" (funded by Lithuanian Research Council, no. MIP-037/2010) which was accomplished in Lithuania in 2010–2011. This paper is of descriptive nature, and the authors' contribution rests on developing the background for further (including comparative) explorations of the theme.

2 Study methodology

As mentioned above, the paper is based on some results of research project "Academic authorship: normative definition and empirical reality" (funded by Lithuanian research Council, 2013–2015). More specifically, the presented analysis is focused on the topic of plagiarism in two closely interrelated domains: (a) formally, as it is presented in the requirements for authors in Lithuanian scientific journals and (b) informally, as it is discussed by chief editors of the journals.

In methodological terms, the data were collected in several stages in 2013–2014. First, a list of Lithuanian scientific journals ($N = 266$) was developed following the information provided by the library of Lithuanian Academy of Sciences (<http://www.mab.lt/lt/istekliai-internete/mokslo-zurnalai>). That is, all journals, which were listed in the list of Lithuanian scientific periodical editions (in Lithuanian: Lietuvos mokslinių periodinių leidinių sąrašas su papildomais duomenimis) were included in the study. Next, visiting a public website of each journal, requirements for authors were downloaded as a pdf file or simply copied from the websites in a MS Office word file. In total, 219 (86% of all) documents were found on the websites of the journals. These documents composed the entire corpus for further data analysis.

Quantitative analysis of the content (Babbie 2013: 300–302) of the collected journals was carried out using a keyword “plag⁺” as a recording unit (Nachmias & Nachmias 1987: 336–337). Hence, such statements as “All publications cited in the text should be presented in a list of references” or “The manuscript is your own original work, and does not duplicate any other previously published work, including your own previously published work” or “The author must guarantee that he has not been violating authorship rights of the third party and that he provides due references to other authors’ ideas which are used directly or indirectly [in the work]” were not included into analysis as providing indirect references to potential cases of plagiarism and, thus, denoting the latent content. Also documents of international publishers and/or consortiums (e.g. COPE <http://publicationethics.org/>, Taylor & Francis <http://journalauthors.tandf.co.uk/submission/ScholarOne.asp>) which were referred by some journals, were excluded from the analysis. Hence, the analysis was concentrated on national definitions exclusively.

Next steps after identification of the term “plagiarism” and its semantic forms (e.g. “plagiarize”, “plagiarist”, etc.) were exploration and classification of the contexts in which the terms were used, and calculation of the number of times the sememes were mentioned in the identified contexts.

Further, the combined list of journals was used for identification of informants (i.e. chief editors) for semi-structured interviews. The final sample of the study participants ($n = 25$) was predetermined by the number of publicly available contacts (i.e. some journals do not provide contact information on their websites; some journals provide contact information which is not active), the editors’ willingness to take part in the study, and limits of time. Hence, in methodological terms, despite the population was small and clearly defined, development of the actual sample was featured by both expert (Kvale 2012:70) and convenience sampling techniques (Layder 2013:126; Emmel 2013:35, 42).

The semi-structured interviews started with introductory notes about confidentiality of the provided information and with general questions about experience in editing the journal and usual practices of the editors. Next, the questions were structured in several blocks: questions about authorship (definition, requirements, control, violations and reasons for violations, etc.), questions about citing other sources, including plagiarism (again: definitions, rules, control, violations, etc.), questions about authorship rights (ownership, violations, etc.), and questions about reviewing (general procedures, selections, control, etc.). The interviews were finished with more general questions

about the main problems the editors have been dealing in their work and general challenges for the authorship and related issues. All interviews lasted about 1 hour and were accomplished at editors' work places.

For the purposes of exploration of the plagiarism-related issues, answers to the questions about the plagiarism and thematically significant comments were selected. The recorded interview data were analysed using the meaning condensation approach (Kvale 2012: 106–108): selection of relevant pieces of the material was followed by identification of the central themes in responses of each informant. Then the themes were connected into separate narratives defining varying contexts (if they were found).

3 The findings

This section of the paper presents results of content analysis in two parts. First, results of formal descriptions of plagiarism-related issues in the journals requirements for the authors are present. Second, the editors' informal considerations of the issues are presented.

3.1 *Formal descriptions of plagiarism related issues in the Lithuanian scientific journals' requirements for the authors*

Quantitative content analysis of requirements for authors in Lithuanian scientific journals reveals that most of the journals provide detailed descriptions of review procedures and specify rules for citation, but few of them (i.e. 10 or 5% of all analysed) mention plagiarism directly. Three contexts in which the term occurs can be distinguished: one that expresses the editors' position, the other related to authors' responsibilities and still another one to the journal's practices and tools used to prevent the phenomenon.

The first context can be characterized by normative rigour from the viewpoint of the editors, as demonstrated in the statement of the editorial board's position in respect to plagiarism: "The journal's editorial board fight against plagiarism actively"¹ (one document, bold by the authors). The term was mentioned among other issues right after the statement of a general character expressing overall position to academic misbehaviour (i.e. the journal is "committed to upholding the highest standards of publication ethics and takes all possible measures against publication malpractice"). Such finding suggests that plagiarism is approached as one of the most important (or even of exclusive importance) ethical issues at least in some Lithuanian scientific journals.

Second, two journals were found as re-citing each other by giving guidelines to the authors against undesired behaviour: "Originality is a very important aspect of a research paper. Take great care to avoid plagiarism in your writing and be sure that any text you pull from outside sources is properly quoted and referenced" (bold by the authors). Another two journals were even more specific in defining the author's/authors' responsibilities, i.e.:

¹The terms here and below in following citations are bolded by the authors.

“Authors [...] assure that their work is original and unpublished, and is not under consideration for publication elsewhere. In addition, authors confirm that their paper is their own; that it has not been copied or plagiarized, in whole or in part, from other works; and that they have disclosed actual or potential conflicts of interest with their work or partial benefits associated with it.”

Hence, in addition to the found repetitive formulations of the requirements, the second context of mentioning plagiarism is related to the author’s responsibilities and obligations which shall be undertaken while submitting the paper for publishing. Also other forms of plagiarism such as copying, passing, duplication, etc. (Kitchin & Fuller 2005: 32–35) are mentioned directly or indirectly in this context.

More frequently, the term plagiarism was mentioned in the context providing information for authors that the “manuscripts are to be submitted to the plagiarism checking system” and detailing the subsequent actions. The respective warning was found in five documents. However, just one journal provided a more detailed explanation of how the system works: the system “compares the content of the manuscript with vast database of web pages and academic publications”. From the perspective of the journal’s actions, specifications about the actions which will be undertaken in the case of identified plagiarism before publishing the paper (i.e. “Manuscripts judged to be plagiarised or self-plagiarised, based on any source of information, will not be considered for publication”) and after the paper had been published (i.e. “In case of [published] plagiarism, the editorial board publishes public apology to the readers”). These two actions were indicated in two separate journals. In addition, other forms of the plagiarism such as “dualism” and “self-plagiarism” were mentioned exactly in this context.

Summing up at this point, it is important to highlight two tendencies. One tendency is the absence of a more or less precise definition of plagiarism and consistent enumeration of its possible forms. Meanwhile practice demonstrates² that the community lacks knowledge in this realm. The other tendency is that all the mentioned references and contexts appear in the journals operating in the fields of social sciences and humanities, but not in the fields of biomedical or exact or technological sciences where ethical issues are of high importance (Van der Burg & Swierstra 2013). One of the explanations to that can be the editors’ attitude that the purpose of their journals by far “is not to educate the authors”.

4 Attitudes to plagiarism-related issues among Lithuanian scientific journals editors

Qualitative content analysis of the interviews with the journals’ editors reveals existence of different attitudes towards plagiarism and reports employment of several types of practices while coping with plagiarism prevention and detection.

²The recent case of plagiarised part of PhD dissertation [<http://www.delfi.lt/news/daily/education/akademikai-susipyko-informacija-viena-o-darbai-du.d?id=67042320>] could serve as a typical example here. Also several relevant examples could be found on the webpage of the Lithuanian Ombudsmen for Academic Ethics and Procedure [<http://www.etika.gov.lt/>]. N.B. All information is in Lithuanian only.

More precisely, the issue of a lacking definition of plagiarism and clarification of the related issues in the journals' requirements for authors may be extended with the editors' reporting about absence of plagiarism policy in the journals in general. Few editorial boards had it and admitted that they had discussed possible models of actions in the case of detected plagiarism just informally. The editors' reasoning for such a situation is twofold: on the one hand, a policy and procedures are not necessary because either there will be no actual demand for them or "the question will resolve by itself when it arises"; on the other hand, the situation is deficient, i.e. a principled position regarding improper citing should be defined in the journal. However, as it was established in the journals' document analysis, the latter position turns into actions in few journals and in a rather general or fragmented form.

In procedural terms, all editors mentioned a plagiarism checking system as the primary tool for detecting plagiarism. The general tendency which was pointed out by editors is that "formerly, cases of plagiarism were frequent; now, when there is a checking system of databases, cases of plagiarism are rare". However, as it was noticed by some editors, "there are a number of refined ways of evading the red-light percentage". For example, the checking systems are helpful in detecting plagiarism cases in the articles which are written in the same (i.e. English) language only. Meanwhile a typical practice of duplication is publishing (almost) the same text in several different languages (e.g. English and Lithuanian), arguing that the findings might be interesting and more easily accessible to international and national academic communities. Moreover, some of the editors reported that they were not able to use such plagiarism detecting systems simply because the journals lack funding and they are not able to purchase the systems. To some extent, the problematic issues are resolved by additional efforts of the chief and vice editors, language and general editors and/or reviewers, i.e. the persons, "who are responsible for detection of plagiarism and self-plagiarism, and tendentious citing" in different journals. The efficiency of such (though time demanding) activities is predetermined by a small size of Lithuanian scientific community where "everybody knows most of the authors well" and "it is easy to suspect where something wrong is – following structure of the text, flow of argumentation one can see that something is missing". Then, "it is enough to enter a phrase in google and you can find it". Hence, the editors pointed out several measures as being of the highest efficiency in fighting against plagiarism. One measure is anchored in the editors' work: it is a proper database of selected reviewers and/or a high professional level of the editorial board: "working in separate fields of science, usually it is known who have been exploring certain topics, what one has been writing about. That is why it is possible to retrace ways of ideas and knowledge; and then they just have to be checked thoroughly." Another measure, which denotes cooperation between the journals and ethics commissions at research organizations, is publicity: "a publicised case of plagiarism would preclude person's further career in science". In this context, it is important to note that the function of ethics education among community members is transferred to the organizational ethics commissions. Although the editors reported that they carry out educational work to some extent (e.g. explanations how and why malpractices should be avoided), this function is not considered as the duty of the editorial board/journal and its further elaborations (e.g. presentation of definitions of

different forms of malpractice in the journal's policy declarations) is not considered as an editorial task.

As there are no clearly described modes of behaving in the case of detection of plagiarism, a course of action at the factual level by the editors varies depending on the journal and the editor's personality as well as the perceived seriousness of violations. For example, some editors reported that if mistakes in citing were tenuous, they would just give a remark about the necessity to make corrections. Also, "if a reviewer notices attempts of tendentious citing of particular authors, it is asked to argue the necessity of such citing". In the cases when the editors considered the quality of the presented paper as low because of many citing mistakes in the text and had an impression that unqualified citing and other malpractices were conscious, the paper would be rejected and the author blacklisted. Moreover, other editors reported just a hypothetical course of action: "if such a case occurred, we would inform the author's institution". However, based on the overall data from the interview, most of the editors are more inclined to motivate and encourage the authors to develop their paper than simply reject it. Moreover, there is no information whether the journals have ever informed research institutions about their members' malpractices in publishing; neither was such a sanction mentioned in any of the journal's information for authors.

Another key topic mentioned by the editors in the context of "citing mistakes" (i.e. plagiarism) was self-plagiarism. The editors separate two issues here. On the one hand, it is "simple multiplication of texts without bringing any significant contributions". Such an action is "ethically not acceptable". On the other hand, repetitive description of research methodology, description of previous studies are "essentially unavoidable" and depend on specifics of the field of science, originality of the study, level of discussion. Such cases are not defined as self-plagiarism by the editors as "it can be reasoned".

Finally, in the editors' opinion, the reasons for researchers' plagiarism are twofold, and both reasons suggest some kind of justification for plagiarism. That is, one set of justifying the reasons is a lack of knowledge and experience, a low level of academic literacy ("people do not know that such an action is not acceptable"); the other set is superficiality, rush to publish as much as possible because of too high requirements for researchers in terms of number of publications. The first set of reasons is more typical of younger researchers and the other is more typical of senior researchers: "a typical plagiarist is someone in the position between associate professor and professor", the one who already gained reputation. In this discourse, mid-aged scientists who strive to gain reputation seem to risk less.

Summing up, the editors' experience in dealing with plagiarism varied: some editors reported that they had never been dealing with cases of plagiarism; others reported that cases of plagiarism were rare in their practice; still others reported that plagiarism was rather frequent as "it is known and seen – there are many unethical examples of citing", admitting that plagiarism "is strongly rooted and is a part of corrupt science system". However, there is a tendency, that "the higher the level of the journal the smaller amounts of plagiarism and other ethical violations because it is clear that such a paper [i.e. the one bearing characteristics of assumed unethical practice] will not be published". As the highest level Lithuanian scientific journals tend to be associated

with international publishers, the tendency is related not only to the perceived level of the journal's quality, but also to the international scope of publication.

5 Discussion and conclusion

Content analysis of Lithuanian scientific journals' requirements for authors and materials of interviews with the journals' editors show that existent practices of editors' work and plagiarism are typical as everywhere (Kitchin & Fuller 2005). That is, in general, cases of plagiarism happen, a systemic check for plagiarism before accepting a paper for publication is a usual practice, editors use reviewers not only for general reviewing of the papers, but also for detection of plagiarism.

However, the journals' tactics regarding plagiarism differs depending on the journal: although most of them do not raise their authors' awareness of potentially unethical actions, some journals tend to prevent plagiarism by warning the authors that their texts will be checked or simply by drawing authors' attention to the issue. It is no surprise that editors of different journals report existence of a different extent of plagiarism. It is important to note here that the perceived quality of a scientific journal is negatively related to the extent of plagiarism: the higher the quality, the lower the amount of malpractice.

However, editors' reasoning about causes of plagiarism and a lack of action in respect to the cases of plagiarism is paradoxical. That is, based on the editors' report, one of the main causes is lack of awareness what plagiarism is. However, analysis of the requirements for authors and the editors' reports shows that clear definitions as well as general policy against the malpractice are absent. None of the editors expressed an intention to initiate educational initiatives for deepening the understanding of publication ethics.

Such findings lead to the conclusion that the role of scientific journals in respect to plagiarism is ambiguous: on the one hand, efforts for avoiding publishing plagiarism is a part of a common procedure of the review; on the other hand, it is accepted that the technical check against plagiarism is not efficient enough. Hence, considering a reported lack of knowledge in the field, there is an obvious need for development of other measures and tools for not only detecting but also preventing plagiarism in Lithuanian scientific journals. Defining plagiarism is a minimum that can be done to raise the awareness of the authors. However, considering the socio-cultural context of a post-soviet society, many instructions may go unnoticed or viewed as "just formal" requirements rather than something that can bring, e.g. loss of reputation or public shame. These potential consequences could be brought to the authors' awareness by descriptions what anti-plagiarism procedures are applied by the journal and how the journal deals with the detected cases of plagiarism. Knowing that the journal will not tolerate it and will inform, for example, the ethics committee at the author's academic institution may reduce the motivation to submit a (self-)plagiarised work for review. This step would diminish the personalisation or subjectivity aspect from editor's or editorial board's considerations: as academic community in Lithuania is small, editors may feel personally uncomfortable that they are putting a well-known professor to bad publicity. Naturally, the procedure of informing an academic ethics committee should

not end at that point. Committees must have procedures for investigating the case and a set of actions to be taken in response to the malpractice. These actions should involve investigation into the motives of the transgressor and organizational practices which either did not prevent or incentivized to submit a plagiarised work.

However, considering prior research findings on the situation of research ethics management in Lithuanian academic institutions (Novelskaitė & Pučėtaitė 2013), which indicate that the system of research ethics is fragmented and the cases of malpractices are dealt with at individual rather than organizational or procedural level, such a sequence of actions is unlikely, and just two stakeholders, i.e. editorial boards and reviewers will keep the level of academic integrity in the system of science. Efforts of multiple stakeholders are needed. First, attention should be turned to high schools which can develop awareness of plagiarism and stimulate respect to intellectual property at young age. Having stated this, we also call for research of the situation at this level of education. It is common knowledge that high school pupils are given tasks to make presentations or reports, reason a problem for their project work or make an overview of a particular situation disregarding the necessity to provide references. Habitualised practices are transferred to universities and colleges and carried on there unless institutional measures provide moments for (self-)reflection through ethics(-related) training and make integrity a standard in their educational and learning processes.

These measures being absent make considerations about prevention of plagiarism utopian. In particular, as the overall tendencies of establishing ethical standards in professional and business behaviour in Lithuania, which, historically, came top down after the regained independence, e.g. pressed by the EU directives or headquarters of multinational/foreign companies (Pučėtaitė & Pušinitė 2015; Vasiljeviėnė & Freitakienė 2002), we propose that effective prevention of plagiarism at this stage depends on the incentives by academic institutions to their researchers to publish in international journals issued by independent publishing houses rather than their universities, unless they are recognized editions in the field. These aspects can be dealt through human resource management practices such as evaluation and promotion.

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THE LEARNING COMMUNITY AS AN ACADEMIC INTEGRITY TOOL OR RESOURCE

Trudy Somers

Abstract:

Although text-matching software has improved the quality of academic integrity assurance, some assert that it has contributed to potential problems between members of the academy. For example, plagiarism issues may distort trust between student and teacher (Rogers, 2009). Text-matching report responsibilities may cause resentment by teaching assistants and faculty (Perez-Stable & Vander Meer, 2012; Williams, Verwood & Beery, 2013). Process increases may burden an already overextended academic bureaucracy (Doyle & Buckley, 2014).

Several solutions for these issues are in place or proposed: specific training in faculty development (Thurmond, 2010); orientation classes for students (Kara & MacAllister, 2010); instructional design innovations (Garnica, 2010; Ragan & Schroeder, 2013); specific mentor tasks for students (Aaron & Roche, 2013); and, elimination of the thesis requirement (Dole & Buckley, 2014). This paper considers the pros and cons of the learning community as an additional possible best practice in the search for academic integrity. Factors such as international students (King, 2014; Wallace & Dunn, 2013), learning platforms (Butakov, Scherbinin & Diagilev, 2013), institutional policies (Oberreuter, L'Huillier & Rios 2011) and culture are examined.

Key words: learning community; global issues; current practice; strategy for prevention of academic misconduct

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RESEARCH ON ACADEMIC INTEGRITY. THE ROLE OF AWARENESS OF LOCAL ENVIRONMENT IN DEVELOPING UNIVERSITY ANTI-PLAGIARISM STRATEGY

Jolanta Urbanovič, Nijolė Vasiljevienė, Inga Žalėnienė, Nomedā Gudėlienė

Abstract:

The article analyses theoretical and practical aspects of institutional anti-plagiarism policy development: concept of academic integrity, policy of academic integrity, plagiarism cases, distribution of responsibilities and developing / shaping culture of honest behaviour. Practical aspects of anti-plagiarism policy are presented through analysis of a case study of research on academic integrity. Qualitative research methods such as document analysis and focus group discussions in several target groups – students, academic and administrative personnel – were applied. This article presents a case study of research on academic integrity with the purpose to (better) reveal the role that awareness of local environment plays in the development of anti-plagiarism policy in University.

Key words: Academic integrity, research on academic integrity, plagiarism, anti-plagiarism policy

Introduction

Dishonest academic behaviour discredits the name and reputation of a higher educational institution detracts its institutional values and hinders competitiveness. Research on academic integrity (AI) and in depth analysis of cases of academic dishonest behaviour at a university are measures allowing to find proper solutions to the problem. Knowledge and awareness of the local environment are the major tools in developing institutional ethics policy and procedures. Identification of dominating value system enables to choose the most appropriate value management strategies and adapt them to the present socio-cultural environment and institutional context. In addition, research on AI helps to understand the objective reality and its problems, identify phenomena, facts and components, comprehend existing interdependencies and tendencies, present the models of AI reconstruction, and, thus, triggers the change of the current situation. The factor of subjectivity in AI case does no harm to the research quality, but it may help identify with better precision both the interrelated problems and their interferences.

Qualitative research strategies are the most relevant for AI research when it is not possible to ignore the impact of the context and research methods are directed towards its identification, insight analysis and search for possibilities to change the environment. Qualitative research is described in a narrative form and statements that may appeal not only to objective facts, but also to the accepted law, norm or principle and the standard of ethical behaviour. Contrary to quantitative, qualitative research strategies provide a possibility to have a deeper analysis of the research

object, depending on the peculiarities of the area which is being evaluated and on the attitude of the evaluator. Analysing individual reflections, situations, observable facts, the applied qualitative research uses formalised measurement scales, statistical data, etc. but on greater variety of facts, events and their insights by revealing conformities and discrepancies to the law, norm or principle (including identification of differences in normative and descriptive discourses, declared and real academic integrity, measurement of the distinction degree between *de jure* and *de facto* and its determinants). Conformity to the established standards, feasibility to implement organisational commitments, sufficiency of skills and competencies in implementing institutional mission and public interest are evaluated.

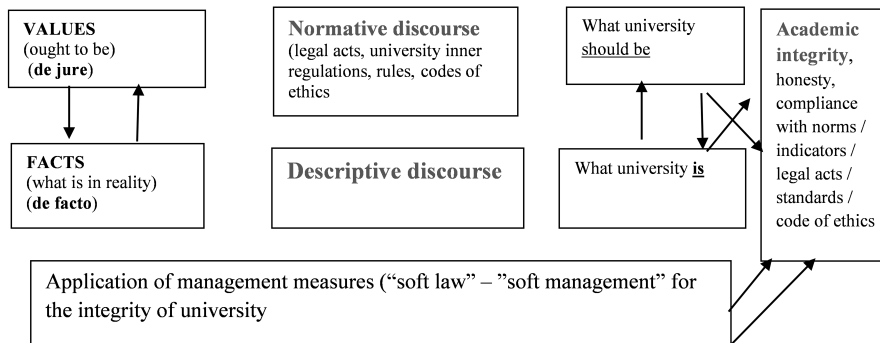
In addition, socio-ethical audit method is appropriate in AI research as it allows identification of the existing AI problems and discerning structures, processes, tendencies and incentives that support them. Asking socio-ethical audit questions helps to objectify the present situation and data of the context analysis (Vasiljević, 2006, p. 627–642) as well as identify changes that are necessary in the higher education institution including factors that need to be (re)constructed to achieve the established objectives and steps to be taken to realise AI.

This article presents a case study of research on academic integrity with the aim to reveal the role that awareness of local environment plays in the development of an anti-plagiarism policy at the university.

The research was carried out in two stages. During the first stage, that took place in 2012, a research group collected the data. A pilot AI research study aiming at identifying major AI problems and providing solutions to the identified problems was launched at Mykolas Romeris University, Lithuania. Recommendations for guidelines on academic integrity policy at the university as well as improvement of institutionalisation of ethical processes were built on the grounds of the analysis of the research results. The second research stage launched in autumn 2014 was aimed at systematising experience as to how the recommendations were integrated into the study and research processes and what impact they had on the change of the AI situation at the university.

1 Theoretical framework behind the research on academic integrity

The recent years witnessed the increasing role of higher education in the context of knowledge society (Etzkowitz, Leydesdorff, 1997), thus increasing societal pressure for higher education institutions to foster transparency. This university transformation is particularly evident in Europe (Maassen, Olsen, 2007; Mazza, Quattrone, Riccaboni, 2008; Bucharest Declaration on Ethical Values and Principles of Higher Education in the Europe Region, 2004). Therefore, the universities seeking the status of a socially responsible institution (Hill, 2004; Reed, 2004; etc) declare academic values and foster them in daily activities. Such institutions go far and beyond to make sure that their actions correspond to the words spoken. Integrity can be simply defined in terms of individual integrity as it has been understood for ages: “do as you say” and “go where you are heading” (Simons, 2002).



Source: modified from Vasiljeviene, 2013.

Figure 1. Developing integrity – implementation of code of ethics, legal acts, norms of behaviour

The volumes of the scientific literature on managing organisational integrity / honesty has considerably increased during the two past decades (for example.: Brown, 2005; Johnson, Phillips, 2003; Kaptein, 1999; Koehn, 2005; LeClair, Ferrell, Fraedrich, 1998; Maak, 2008; Paine, 1994; Palanski, Yammarino, 2009; Pritchard, 2006; Shrivastva S. and all, 1988; Worden, 2003; etc). Especially bearing in mind that behaviour problems of any nature can be solved if they are solved systematically by the methods of management. Integrity concept encourages the development of research in the area (Davis, 2008; George, 2003; Hamilton, 2002; Magyar, 2006; Macfarlane, 2004; Macfarlane, 2008; Macfarlane, Zhang, Pun, 2012; McCabe, 2003; Moore, 2006; Norvaiša, 2011; Vasiljeviene, Pučėtaitė, 2009; Whitley, Keith-Spiegei, 2001; etc).

Universities today are more aware of academic ethics as a form of *academic community self-organisation*. It is no longer enough to simply declare the values without integrating them into university strategies, managerial processes, and organisational procedures. Only properly integrated values serve self-regulation purposes (which should be regularly examined by auditing and monitoring systems) and give insight into whether the university actually meets stakeholders' legitimate societal expectations, cultivates the strategies of social responsiveness, introduces changes in its mission and vision as well as in the implementation processes of code of ethics and behaviour. In other words it is a good way to know if the university analyses how consistently its AI is developed and managed at the same time it stresses and reflects the distinction between reality and obligation (please refer to Picture 1). It is the essence of academic integrity that is built on methodological principals, i.e. instrumentally developed university corporate *integrity which is measured (“scanned”) prior to implementing AI in a concrete institution* (Vasiljeviene, 2013).

Implementation of complex multifunctional value management models requires comprehensive research which examines different dimensions of an organisation, its structures and their components, interdependancies and relations, networks and interactions, various analyses of different institutional contexts and concrete situations

with the focus placed on operational steps of strategies. The article presents a pilot research study carried out at a faculty of the university and it was aimed at identifying *the status quo* of an institution in order to development anti-plagiarism policy in University.

2 Methods

The strategy of qualitative research has been chosen. As it was mentioned in the introduction qualitative research methods are the most suitable ones in identifying the factors behind dishonest behaviour. Focus group discussion was the major data collection method. The choice of the data collection method was based on the fact that a group of interacting respondents provides maximum data and insights. In order to receive more profound data, additional data collection methods including analysis of documents and secondary sources were used. Certain phenomena, characteristics, and tendencies of academic life were benchmarked against the documented data, theoretical literature and case studies (documented or presented in a narrative form). The methods were useful when comparing and evaluating the progress of AI at the second research stage.

Focus group respondents were chosen applying the criteria selection method (knowledge, work experience, relation with the phenomenon analysed). The respondents meeting the selection criteria were asked to participate in the research. The ones who agreed were later invited to focus group discussions. While forming focus groups a particular attention was paid to the composition of a particular group so that the research results would reflect the attitude of all the stakeholders: students, teachers, administration. The focus groups were formed in line with homogeneity principle grouping respondents according to the functions performed at the university and avoiding subordination as it might have had a negative impact on participation activity and content of critical reflections.

The discussions took place in five focus groups: teaching staff (6 representatives (code – T)), 2 student groups (26 Bachelor, Master and Doctoral level students (code – S)), the heads of departments (leaders) (5 representatives (code – M)), and administrative staff (7 representatives (code – A)). The average duration of the discussion was 70 minutes. The discussions were audio recorded and later transcribed.

The questions covered in discussions included several thematic areas: *awareness of academic integrity, anti-plagiarism policy, distribution of responsibilities, suggestions regarding prevention of dishonest behaviour and forming a positive university image in the eyes of society*. It is important to mention that although the research questions were more oriented towards study processes and factors determining them, some elements of research activities were discussed as well.

3 Results and Discussion

3.1 Perception of academic dishonesty

In the beginning of the focus group discussions respondents were asked a question allowing (participants) them to clarify their understanding / perception of academic

Table 1

Perception of academic dishonesty

Dominating definitions / descriptions of honest behaviour	Dominating definitions / descriptions of dishonest behaviour
<ul style="list-style-type: none"> • Honest performance of his / her (student, teacher, leader, administrator) duties; • Accountability to a certain professional community. 	<ul style="list-style-type: none"> • Dishonest behaviour is related to breaches of certain requirements and rules obligatory for academic community members; • Violation of equal opportunities and competition; • Appropriation of intellectual property rights, etc.

dishonesty. It brought some light on the way they see AI, its dynamics, expectations and attitudes of different stakeholders (students, academic staff, and university administration). *“The relations between teachers and students always have a subjective nuance. Undoubtedly, they could be modelled to a certain extent but inside our academic community it is possible to observe a different understanding of the standard of academic integrity”* (T). Similarities and differences of respondents’ opinions helped to identify the degree of consent between different groups of stakeholders that can determine smooth academic integrity management process “Clarity and consistency in defining misconduct are prerequisites to establishing or evaluating an administrative system for processing misconduct allegations, and for understanding the underlying causes and effective remedies” (OECD, 2007).

Some respondents have indicated that plagiarism is when *“a person uses an intellectual asset created by another person but not by himself / herself”* (S). Teachers have emphasized that *“it is the behaviour that violates equal opportunities and competition between students in a broader sense.”* (T). Students have identified that *“it is the result obtained in a manner of deception/cheating or attempts to do so”* (S).

To summarise, the respondent perception of academic integrity corresponds to the definition of the dishonest behaviour as provided in OECD (2007) report – “Plagiarism is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit, including those obtained through confidential review of others’ research proposals and manuscripts” (p. 4).

The abstracted research findings indicating AI perception are provided in Table 1.

The analysis of critical reflections regarding academic integrity indicates that different groups of stakeholders have similar perceptions regarding dishonest behaviour in student – teacher relations in different stages of study process.

However, while analysing the content of focus group discussions many questions were raised about the ultimate value of integrity – *honest to whom?* To myself, students, colleagues, institution, professional community, society, etc.? Many respondents have

emphasized the importance of professionalism, competence and academic integrity highlighting an approach that academic community of university is a professional community that is accountable to the profession (for instance, lawyers, doctors, engineers, etc.). Such an approach has logical justification because university research and study output is reflected in alumni skills that will have an impact on the development of a certain sector, innovation and societal welfare on the whole. Students have suggested that *“it is necessary to emphasize the importance of responsibility towards an academic community so that everyone would be held accountable for his / her actions and understand that one will not achieve much by cheating because one will cheat not only against a community, but also against oneself”* (S).

Respondents agreed regarding the content of dishonest behaviour, but they did not have firm convictions on how to understand dishonest behaviour and ignoring rules due to lack of understanding. There were some doubts raised regarding additional presentation of research work and teachers connivance to malpractices.

Intensive discussions regarding the relationship between academic and financial integrity took place in the focus group formed from personnel taking leading positions. Two opposing approaches dominated. The supporters of one approach emphasised that *“dishonest behaviour is not important in a broader academic and scientific sense as such because an individual who chooses to behave in a dishonest way himself / herself puts his/her reputation at risk”* (M). One respondent has suggested that financial dishonesty is important in this case because an individual or an institution receives remuneration for dishonest activity. According to the opinion of this group of respondents, there is no need to establish rules / standards for research because *“life will rank researchers according to the market laws”* (M).

The supporters of another approach were more radical. They believed that appropriation of ideas generated by another person when developing research output or incorrect citation as well as *“teaching from old material, lack of references in study material”* (T), etc. refer to dishonest behaviour. They emphasised the importance of individual responsibility though agreed that work conditions provided by institution have an impact on the formation of responsibility culture.

3.2 Factors of individual dishonest behaviour

Based on the research results the factors determining dishonest behaviour were grouped into two categories:

External:

- *Macro-level:* competition between universities in attracting students (determined by a country's demographic situation and the model of university financing). *“University competition is a negative phenomenon but we have to adapt to it whether we like it or not”* (M).
- dominating traditions of societal behaviour: *“I would like to add that copying is widely spread in the society, it is tolerated too much and understood as a natural learning method, especially in high schools”, [...]* (S).

- *Micro-level*: peculiarities of personnel and study process management, norms of performance / research output evaluation, etc. “*It is difficult to carry out one’s duties in a due course if the academic staff is overloaded with tasks (S).*”

Internal:

- Student motivation and consciousness regarding study objectives: “*A number of young people happen to enrol into study programmes they do not like; therefore, sometimes they fail to understand where they are and have low motivation to study. As a result they study under compulsion and tend to choose the easiest way out – to behave dishonestly*” (S).
- Different level of student academic literacy;
- Ignorance of standards and procedures:
- Passivity of students and teachers: “*The problem is that there are quite favourable conditions to cheat and cheating is tolerated by teachers. They see what’s happening, they see who is cheating and who is not; and maybe sanctions for dishonest behaviour and motivation not to cheat are too weak*” (S)

Our research findings also validate the results of research carried out by McCabe and Trevino (1993) that revealed several students perceptions affecting the likelihood of students to violate AI: (1) peer behaviour, (2) the level of faculty understanding of AI policies and procedures, (3) the overall effectiveness of AI policies and procedures, and (4) severity of the penalties for misbehaviour.

In addition, participants at the focus groups have noticed that one of the factors of dishonest behaviour could be lack of time though not always necessary/ justified. The phenomenon when the time of high competences staff is exhausted by work requiring low competences is called irrational use of human resources.

In the discussion of academic and administrative staff quantitative research performance norms were touched upon and critically assessed.

In addition, research findings also suggest that one of the most frequent factors behind dishonest behaviour is excessive “clientelism” – “[...] *when you pay for your studies, you can dictate the conditions ...*” (S). Quantitative analysis of dishonest behaviour experience raises the problem of a teacher’s authority that is influenced by treating students as clients since a teacher becomes “a service provider”, one-sidedly oriented to accountability of service quality. Students avoid teachers that require putting more efforts and accountability for their actions. Students often ignore the remarks of their teachers and supervisors, are free to change them, misbehave during lessons. Students have suggested that “*If a student is viewed as a client, he / she can determine conditions but if as a partner, a student himself becomes more demanding (S).*”

However, future employer is the real client that requires professionalism from his employee and his / her Alma Mater. The current situation triggers the change of institutional discourse because not the students’ but the market (employers) needs should dictate the degree of study liberalisation. This approach increases professionalism and

does not hinder it, orients towards a free self-realisation stipulating perfectionistic approach towards work and to the knowledge gained during the study processes.

In addition, lack of clear integrity standards and procedures determines irresponsible teacher behaviour. It causes different interpretations of honesty limits, tolerance of AI breach to avoid procedures, application of double standards, etc.

Respondents indicated that most often in cases of AI breaches are cribbing / copying off, cheating and buying final theses from outside sources. According to the opinion of respondents, plagiarism was in the fourth place in terms of frequency of dishonest behaviour. Buying written papers or plagiarism are related to lack of ability and responsibility. These circumstances stipulate the need for academic writing courses. That is why respondents have emphasised that such courses should be aimed at the development of practical skills.

It is worth mentioning in this context that students are well aware that plagiarism should be taken into consideration. However, as Power (2009) concluded, “students did not seem to care about it intrinsically, as a matter of concern stemming from themselves. It was almost always a function of their professors and what they cared about” (Power, 2009). Moreover, the problem is increasing because “the digital age poses new challenges never seen before in the profession” (Thomas and Sassi, 2011). On one hand, plagiarism possibilities expand but on the other hand, digital technologies are improving and helping identify the cases of plagiarism.

3.3 *Academic integrity policy and regulation*

The earlier research revealed that one of the most important factors determining student dishonest behaviour is involvement of their peers and colleagues into such activities (McCabe and Trevino, 1993, Broeckelman-Post, 2008, p. 206). For this reason, university academic and administrative staff have to analyse seriously how they address AI violation (Finn and Frone, 2004; Caldwell, 2009, p. 2). If academic and administrative staff “seem to ignore or condone academic dishonesty, students are more likely to engage in dishonest behaviours”, Broeckelman-Post (2008) suggests. Teachers who participated in the research have emphasized that “*standards should be clearly defined because otherwise there is a lot of room for various interpretations*” (T).

Majority of respondents have agreed that university mission appeals to academic integrity and ethical values. They also agree with a statement that university documents clearly define the policy of academic integrity (characteristics that are not tolerated by the community, procedures for identifying breaches and sanctions applied). However, answers to more profound questions revealed that AI policy elements and procedures are not known and equally clear to all respondents. The critical reflection analysis of respondents’ answers, especially those of administrative staff, point out to the need of clearer AI regulation and more severe sanctions. However, teachers have noticed that “*it is not necessary to standardise everything but to indicate how to behave in situations that are not typical*” (T). “*because university is not any other bureaucratic institution but educational entity that forms thinking [...]*” (T). Thus, it is not necessary to formalise everything.

Although intolerance to infringements becomes more severe (stickter) and self-discipline is consolidated more actively, majority of informants think that in order to prevent abuse, deception and fraud in academic activities, it is necessary to focus not on punishment (that need to be referred to any way) but on the desired behaviour and concrete directions / guidelines towards correct/honest academic practice. It is more important to orient academic community to the pursuit of “high academic” and obligatory behaviour than only to prohibit and punish. In each case, it is worth noting that “it is always better to prevent bad behaviour than to be forced to deal with its consequences” (OECD, 2007, p.5).

3.4 Responsibility for academic integrity

Proceeding from the research results we can distinguish three levels of responsibility:

- *Institutional responsibility* – formulating policy and conditions for academic integrity culture in an institution;
- *Individual responsibility* (students, academic staff) – honest fulfilment of his / her duties;
- *Collegial responsibility* (thesis defence commissions and committees, etc.) – consentaneous and objective decision-making and their implementation.

When assessing the distribution of responsibility respondents have emphasised honest fulfilment of his / her duties (students and academic staff) despite the conditions and impact of the environment. “*Everyone has to have intrinsic responsibility because honesty and dishonesty depend on your role in the university. Student status should incorporate in itself certain honesty verdicts and criteria whereas a teacher has to have his/her methods how to implement honesty and how to avoid dishonesty*” (S). Teachers think that “[...] *if I respect myself as a teacher, I need to maintain the standard of objectivity*” (T). Honest student behaviour, in its turn, “*depends on student interest – how much he is willing to study and learn*” (A).

Noteworthy, due / honest behaviour on an individual level inevitably determines the increase in work quality. For example, one respondent has indicated that university leadership behaviour when a dishonest activity was disclosed had an impact on his/her behaviour. “[...] *I have seen the reaction of university leaders, how they respected me when I disclosed such cases, when I was fighting against them [...]*” (T). Talking about the research on (dis)honest behaviour of researchers it is important to pay exceptional attention to professionalism and thoroughness in identifying a violation “since the reputations of scientists are easily damaged and difficult to restore” (OECD, 2007, p. 11).

It is important to emphasise in this context that as the role of a university changes in the society, the role of research staff evolves as well. A researcher gains more functions that transform their academic habits (Gordon and Whitchurch, 2007, p. 157). Therefore, in the event of multitude of reciprocally contradicting factors that impact the development of a researcher’s performance and his / her environment, insensibly the behaviour of a researchers shifts from universal behavioural norms and it is the cause of infringements ranging from ethical to legal. Objective behavioural norms

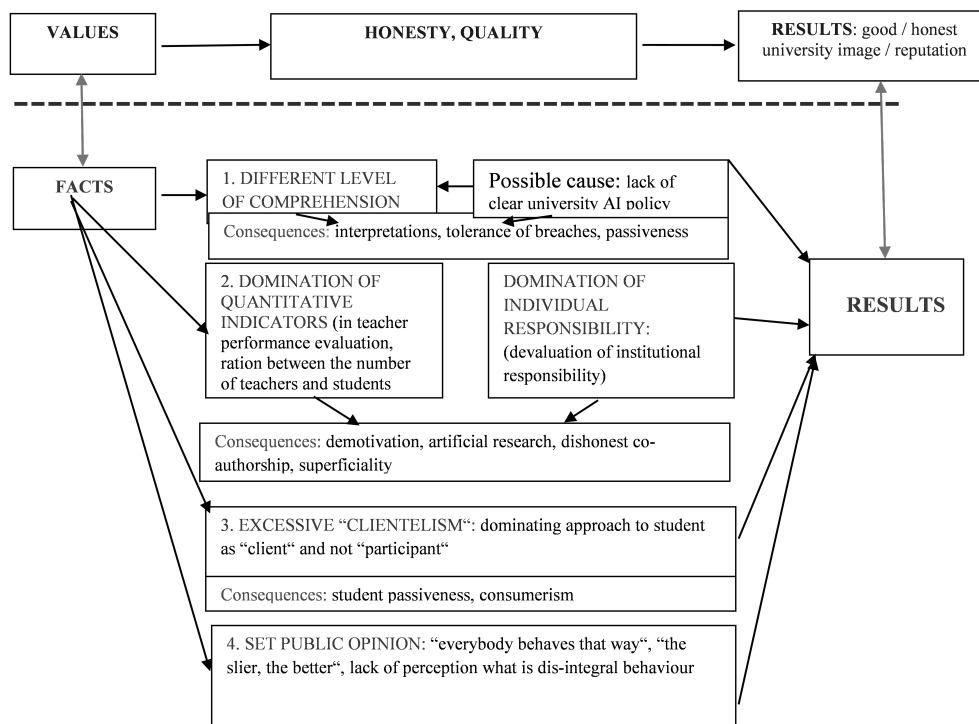


Figure 2. Constructing integrity with values infrastructure

developed at the institutional level may help to decrease the risk of such infringements (Urbanovič and Tauginienė, 2013, p. 77). Also, it is worth mentioning that the research findings by McCabe indicate that the determining factor of AI violation in university "has been the culture of academic integrity to which incoming students were exposed" (McCabe 2005, p.26). As students who participated in the research have suggested "it is important to inform students about the university policy and its ethics so that they could feel part of an academic community where dishonest behaviour is not tolerated. It is important how the information is presented. Students have to be informed and motivated not to violate honest behaviour". (S).

To summarise, the research carried out at the university enables to identify the distinction between values (university mission appeals to academic integrity and ethical values) and facts (cases of dishonest behaviour) as well as factors that determine the gap between them. The summarised results of the theoretical and empirical research are provided in Picture 2.

In the top part of Picture 2 we can see that university declares and seeks to foster honesty (values) but certain factor (facts) existing in reality hinder the process of implementation:

- Different perception of (dis)honest behaviour and ignorance of procedures lead to different interpretations, stimulate progressive tolerance and passivity of both teachers and students.
- The domination of quantitative parameters. *“This quantitative expression serves as a motivator; however, it tends to overshadow good intentions”* (T). High quantitative requirements for teacher research activities and the number of students per teacher determined shallowness and decrease in quality.
- Approach to a student as to a client but not as participant / partner stimulated passiveness and consumerism. A student paying tuition fee has the right to receive the service he / she paid for. *“Also, there are students who demand a lot from a teacher, they want to receive processed information but will not bother to open notes or read what they have not heard in the class. It depends on student interest – how much is he willing to study and learn (A).”*
- It is difficult for universities to affect the traditional attitude formed in the society that *“dishonest behaviour is clever behaviour (A)”*, that *“it is normal because everyone wants to survive”* (S).

The university can create the base for academic integrity using elements of ethics infrastructure when managing the complex of factors, modelling required processes, motivating individuals to behave in a definite way according to the organisation's standards, thus constructs integrity on institutional level. “Creating an academic culture [...] requires a visionary administration that understands the importance of system reinforcing cultural factors (Schein, 2003) that are essential to aligning practices with principles and actions with ideals” (Caldwell. 2009, p. 9).

3.5 Impact on university AI policy

Based on the research results the following recommendations were formed:

1. Formation of student academic literacy skills:

- (a) Compulsory course on academic literacy;
- (b) Integration of academic literacy / ethics norms in all academic areas;
- (c) Strengthened / expanded (if included into the study plan) course on methodology;
- (d) Expanding library functions to enable students to improve academic literacy skills, consult with specialists;

2. Improving qualification of academic staff:

- (a) Methodological courses on teaching (compulsory for the early-stage and periodically recommended to advanced academic staff members);
- (b) Training on academic literacy (compulsory for the early-stage and periodically recommended to advanced academic staff members);

3. Formation of academic integrity policy

- (a) Guidelines for academic ethics procedures including:
 - i. Identification of dishonest behaviour content and cases;

- ii. The order / procedures of recording, information, consideration, confirmation, assignation of sanctions for dishonest behaviour;
- iii. Determined distribution of responsibilities;
- iv. Clearly defined sanctions;
- (b) Strengthening development of) student consciousness (and responsibility):
 - i. Involvement in study quality assurance processes;
 - ii. Enhancing student role (responsibility / accountability) in the study processes.
- 4. **Review of academic staff performance organisation and evaluation order**
 - (a) The ratio between students and academic staff numbers;
 - (b) Limits or supervising final thesis student number;
 - (c) Assistance to academic staff during exams (administrational and technical);
 - (d) Research activity evaluation system.
- 5. **Regular roundtable discussion (between students, academic and administrative staff).**
- 6. **Implementation of periodical / longititude research.**

With regard to AI research results and recommendations provided, during the last two years the following ethics processes were developed at the university:

- The concepts of plagiarism and dishonest behaviour were defined in the documents regulating study process and the procedures were explained how to behave in the case of dishonest behaviour;
- A header of commitment to academic integrity during exams and written papers were prepared;
- Consideration of the Code of Ethics have taken place and amendments will be made after carrying out more extensive research on AI;
- The academic integrity and academic writing themes were included into Introduction to Studies course;
- Academic Integrity promotional material (posters, booklets) are prepared and distributed within academic community;
- Anti-plagiarism system is integrated and used in publishing process;
- University joined the International Center for Academic Integrity, expressed it's commitment to the Fundamental Values of Academic Integrity (**honesty, trust, fairness, respect, responsibility, and courage**) and integrated it into it's inner documents;
- During the consideration regarding amendments of documents regulating study processes at the university major stakeholder groups (students, academic and administrative staff) were proceeded.

Creation of university reputation led to harnessing of academic faults, introduction of the principles of (self-) discipline and more severe sanctions. When analysing measures against plagiarism and fraud it should be emphasised that the major orientation is not towards punishment but to the creation of preventive system that

ensures compliance with ethical norms and standards. The policy of many universities with regard to plagiarism indicates commitment to provide educational support to students and strengthen measures aimed at clarifying those cases that consciously or unconsciously violate (miss) the required standards (James, McInnis and Devlin, 2002). To conclude, plagiarism is curbed by strengthening educational support to students, as well as implementing structural and functional changes at the university. After overcoming typical academic faults, (at least not tolerating them) it became possible to develop pride in the organisation that leads to real loyalty and commitment.

4 Conclusions

- Knowledge and awareness of the local environment in research on AI enhances the development of ethics process. Identification of dominating value system allows the institution to choose and adequately adapt to socio-cultural environment and value management strategies within institutional context and to foresee relevant steps of their implementation.
- The analysis of plagiarism indicates that “support” processes are necessary for formation of the culture of academic and real implementation of the provisions of the code of ethics: clear institutional AI policy and defined procedures of misbehaviour identification, the workload and performance evaluation of the teaching staff, role of the student (client vs. participant) in the study process, clear system of study result / achievement evaluation, public opinion etc.
- The success of a higher education institution highly depends on public opinion and especially on that of stakeholders. If an institution manages to build a positive image in a society and especially among stakeholders, it considerably facilitates achievement of its objectives. It encourages institutions to change their attitude towards the interaction between declared and really functioning value systems. Long-term relations with consumers enable them to become aware and evaluate the values and norms of ethics cherished at university. It stimulates university to review the values and objectives declared. Thus, modern university management requires comprehending why and how the reality (facts) corresponds to due values as well as making practical efforts to abolish the distinction between them. By doing so University essentially promotes academic integrity.

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THE EXPERIENCE OF THE REPEC PLAGIARISM COMMITTEE IN ECONOMICS

Christian Zimmermann

Abstract:

RePEc is an open bibliography project driven entirely by volunteers and without a budget. It was created to enhance the dissemination of research in economics by making it more accessible to authors, publishers, and readers: 1800 publishers participate in this initiative, and 44000 authors are registered.

Some of those authors became frustrated when their work was plagiarized and no action was taken. Many have asked whether RePEc could take action. The RePEc Plagiarism Committee was created to respond to this request. Because RePEc has no enforcement power, it can only “name and shame” verified offenders. This essay discusses the experience over the first years of the Committee.

Key words: Plagiarism; academic literature; naming and shaming; economics

1 RePEc

RePEc stands for “Research Papers in Economics.” It was created in 1997, following some precursor initiatives dating back to 1992, to enhance and democratize the dissemination of research in the field of economics. The field suffers from extensive publication delays; an article can take many years to pass through the peer-review process. Hence, an active pre-print culture has evolved. Before the widespread use of the web, though, it was very difficult to obtain these pre-prints if one did not have access to the networks that allowed such sharing. This meant that the frontier of research was accessible only to economists in elite institutions. Others discovered the research only years later after publication in journals.

RePEc changed this system by allowing any institution to contribute its publications for indexing in RePEc at no cost. The dissemination, which is also free, has been performed by volunteers through websites, mailing lists, and social media. Eventually, RePEc grew both in content and popularity to the point that even commercial publishers started volunteering metadata for their publications. Finally, other initiatives for the economics profession have grown out of RePEc thanks to its central location in the community of researchers.

Engagement in RePEc expanded significantly once it started publishing statistics about authors and their institutions, first based on user downloads of full texts through RePEc services¹ and then by incorporating citation analysis of indexed works. This publication of statistics has allowed the establishment of rankings and has motivated authors to ensure all their works are listed. Authors have exerted pressure on their home institutions and publishers to have their publications listed in RePEc. At the time

¹The most popular RePEc services are IDEAS (<https://ideas.repec.org/>) and EconPapers (<http://econpapers.repec.org/>), which both allow searching and browsing of material indexed in RePEc, and NEP (<http://nep.repec.org/>), which disseminates new pre-prints through email, RSS feeds, and Twitter.

of this writing, about 1800 publishers are participating, covering over 2000 journals and 4000 pre-print series, as well as software, books, and book chapters, for a total of 1.7 million documents.

2 The Motivation for the RePEc Plagiarism Committee

There are four premises that led to the constitution of the RePEc Plagiarism Committee. The first is probably not unique to economics: It is the lack of response to formal complaints of plagiarism filed with the publisher or institution the presumed plagiarizer. It is very frustrating when any author discovers they have been plagiarized and files a complaint where the offender has published, but nothing happens. Without other options, several authors have turned to RePEc asking for help. At first, with no process in place, there was little RePEc could do.

The second premise is that even when a plagiarizer is punished through a retraction and/or sanction at the home institution, the knowledge of this event is usually contained. There have been cases where an offender has been fired and then found new employment where no one was aware of the plagiarism. It is not unheard of that an offender relapses and plagiarizes again.²

The third premise is specific to economics and RePEc in particular: RePEc has made it easier for plagiarism to be discovered. Because it is in the interest of authors and publishers to list all their work, even articles in obscure journals become discoverable. The most spectacular case was a journal that was publishing articles without the authors' consent and under their true names. The authors soon discovered this; the journal was banned from RePEc, and it returned to obscurity. Surprisingly, many plagiarizers contribute the work they have plagiarized in RePEc, to be listed publicly.

This brings us to the fourth premise, which is also specific to RePEc. The publication of rankings has generated much RePEc's growth, but it also has motivated some authors to boost their scores in unethical ways. One way has been to cheat by doctoring their download numbers, something that was quickly dealt with through improved counting algorithms and occasional sanctions. This task of computing the statistics is performed by RePEc volunteers independently of the RePEc Plagiarism Committee. The other instance of cheating is unethically increasing the numbers of works listed in an author's RePEc profile, for example through plagiarism.

Before the Committee was constituted, several spectacular cases of plagiarism came to light. At the time, all what RePEc could do was to remove those works. Even though home institutions were notified, they often did not react, likely because the complaint was not coming from a source they considered impartial or capable of imposing consequences.

Note that in some cases the RePEc Plagiarism Committee responded and took steps that publishers could have taken in trying to enforce their own copyrights. They may not have had a sufficient commercial interest to do so, but the ethical interests of science may be stronger. Thus, the Committee sees it as its mission to pursue cases of plagiarism even if publishers do not.

²Unfortunately, it is not possible to be more specific about these cases because they have not been made public and have not been formally scrutinized by the RePEc Plagiarism Committee.

Here is an example. A graduate student posts a large number of research papers on RePEc within a relatively short time. Of course, this raises suspicions, and reports soon start coming in from authors that they have been plagiarized *in extenso* from other works already listed in RePEc. The student has only changed the title, the author, and the references, introducing multiple references of his own (plagiarized) works. All this was quickly detected and his graduate program was contacted. The administrators of the offender's graduate program promise to address this and soon they communicate by email that the offender was expelled from the program. A few years later, RePEc volunteers look into the case and find that the offender graduated with a doctorate from the very same program. This was not an obscure graduate program, and it was in a country with a good reputation for research ethics.

While the example above may be the most spectacular, it also highlights how difficult it can be to enforce ethical behavior and impose penalties in any such cases. So what is one to do? The approach that was chosen was to “name and shame” offenders on a public website. This means that once a clear case of plagiarism has been determined, all documents relating to it are made public and the offender is named. The naming is crucial here. First, it should discourage future potential offenders. Second, it still imposes consequences on those offenders who are not penalized by their home institutions. Third, in the case that offenders seek new employment, they cannot hide their history.

3 Constitution and Rules of the Committee

Accusations of plagiarism are a serious matter, even more so if offenders are to be named and shamed. The procedures thus need to be rock solid and decisions should be clear. The Committee making those decisions should be beyond reproach and should adhere strictly to procedures. The Committee should also be diverse in representing different regions, institution types, and fields of research.

A call for members was disseminated through the RePEc Blog and through the monthly mailing to authors registered with RePEc. The goal was to enlist 20 to 25 members. This large number is intended to guarantee wide coverage, including multiple areas of research and expertise, and protect members from pressures that could occur if the Committee were much smaller. The broad spectrum also allows the Committee to be free from external pressures—for example, from national professional associations, publishers, and other institutional bodies.

The founding Committee was a mixture of economists who are already active volunteers in the RePEc community, others who have some experience with plagiarism (either as victim, editor, or researcher), and newcomers. The first task was to establish the rules and procedures.

The Committee decided it is willing to address cases of plagiarism that have not yet been publicly documented, say, through a public retraction. For cases that have already been made public, the Committee determined it is sufficient to list these offenders on the Committee's website. Second, for a case to be studied, one of the involved works needs to have been listed on RePEc. It is not the goal of the Committee to cover other fields of study or other public forums, and the restriction to RePEc provides the right

scope and boundaries. It is, however, clear that not all research in economics is covered by RePEc, but one can make the case that most of it is. Third, a case can be submitted to any Committee member, who is required to do some initial vetting to see whether the case has enough credibility and substance. Later, it was also decided that anonymously submitted cases would not be accepted. The main concern here was that anonymous submissions could be motivated by other factors (including vendettas or harassment) well beyond the Committee's mission. In any case, the identity of submitters is not made public, even to the other Committee members.

Once a case is accepted for consideration, the accused offenders have the opportunity to defend themselves. After the case is assembled, it is sent to the accused offender and they have two weeks to respond to the charges. Thereafter, everything is submitted to the Committee, who discuss the case and vote anonymously.

It was decided that for any decision to be reached, a two-thirds majority of current Committee members is necessary. This is a very high hurdle. First, it is more than the simple majority required in most decisions. Second, any abstention counts as a no. Being so strict was felt to be necessary given the potentially strong implications of a decision.

How does the Committee vote? It is not sufficient to determine whether there is plagiarism. There is also the decision about what to do about the plagiarism. The Committee votes separately on the following decisions:

- Alert affected author;
- Alert affected editor;
- Alert administration at home institution of offender;
- Exclude author from RePEc;
- Request removal of plagiarizing work;
- Make the case public.

One may wonder whether excluding the offending author from RePEc has any impact. It can in some cases, as the publication then cannot be applied to the home institution in the rankings of institutions. It was also later decided to give the option to keep the plagiarized work on RePEc, but request the full text to be watermarked to indicate the offense.

Finally, the Committee does not strictly state that plagiarism is present. By alerting some people or making the case public, it makes it possible for others to form their own opinion. But the Committee makes public only clear and credible cases.

4 The Committee's Work So Far

After establishing the rules and procedures, the Committee started taking its first cases in February 2011. Initially, the work was perceived as rather light. Reasons could be that relatively few people were aware of the Committee and did not submit cases, that the reputation of the Committee had not yet been built and authors were hesitant, and that the expected backlog of plagiarism cases just did not materialize. Over time, the number of cases increased. The first cases were rather clear-cut, but some of the later

cases were not. For example, a few cases had some self-plagiarism mixed with typical plagiarism or evidence that was not very clear. Obviously, judging a plagiarism case is more difficult when it is not straightforward. Yet, a very large percentage of cases has been decided with very clear majorities.

The most difficult cases turned out to be those where ideas, and not words, were supposedly plagiarized. In such cases, it is not sufficient to compare text; one needs to actually unravel and understand the concepts. In one case, it was necessary to call for outside referees more familiar with the research area, which turned out to be very difficult. For one, referees are used to contributing peer-review for publication, but not for conflicts. Second, in highly specialized areas of research, few economists do not have some conflict of interest with one of the involved parties.

Surprisingly, some cases never made it to the Committee because the aggrieved parties were not able to provide enough evidence. One example involves an economist alleging that another economist used a presentation of his delivered at a conference to quickly write a paper and submit it before his draft was completed. The accuser was, however, never able to supply his initial presentation.

Another victim and accuser decided to withdraw the case. The case was not crystal clear, as it implied a plagiarism of ideas. The accuser was also afraid of adverse consequences as the accused economist was rather prominent in the field. This result was unfortunate, but the Committee should not overrule the decision of the accuser.

Normally, votes are almost always very clear one way or the other. But the Committee has found it difficult to reach a decision in some cases because it set itself a very high hurdle with the 2/3 majority of current members. The difficulty is mainly in achieving a sufficient number of votes.

At the time of this writing, the Committee has publicized 20 cases on its website at <https://plagiarism.repec.org/>. The reader can independently judge the merits of those cases. Note that there are repeat offenders, although so far no one has repeated after being incriminated by the Committee. In some cases, offenders have had high standing in their home institution thanks to their research, some of which turned out to be “borrowed.”

The Committee website also lists 25 plagiarism cases that have been independently documented, typically through explicit retractions. This additionally includes 12 cases of self-plagiarism (publishing the same work in several journals) and 22 cases of other unethical behavior (manipulation of data, for example). Overall, 78 authors are named and shamed, 12 for multiple cases. This listing further highlights the fact that some repeat offenders in the profession should have been named long ago.

Judging from informal conversations and observations of social media, economists are now very much aware of the existence of the Committee. They do look at the published cases, to the point that papers involved in plagiarism sometimes receive the most downloads in RePEc. This has the perverse effect that offenders may actually receive a boost in their download statistics from the RePEc services that are used for rankings.

One should also add that the existence of the Committee has raised awareness about plagiarism in the profession. Published cases have led to the adoption of plagiarism policies in affected institutions and elsewhere in an attempt to avoid being listed on the

website. One institution even volunteered a case before the Committee had learned about it, asking that the name of the institution not be mentioned before it could take disciplinary action.

5 Looking ahead

We hope that the existence of the RePEc Plagiarism Committee will curtail the incidence of plagiarism. Such unethical behavior is, however, unlikely to disappear, especially as current technology makes it easier to copy other work. A particular challenge that may lie ahead is dealing with cases of unauthorized translation without attribution. Such cases are very difficult to detect using automated screening processes. Also, victims are unlikely to discover such offending works.

Another class of cases that could be challenging are those dealing with self-plagiarism. There is no clear agreement, neither in the profession nor in the Committee itself, on how to define its boundaries. So far, the website lists only those cases documented elsewhere.

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**PAPERS—SECTION II
INNOVATION IN USE OF E-TOOLS AND
TECHNOLOGIES FOR ADDRESSING PLAGIARISM**

REASONS OF PLAGIARISM IN UNDERGRADUATE ACADEMIC WRITING AND BENEFITING FROM TURNITIN

Salim Razi

Abstract:

Plagiarism detectors are beneficial in both detecting and preventing plagiarism in addition to providing useful and effective feedback to students from several sources. This study aimed to model how to incorporate Turnitin into undergraduate academic writing classes as a tool to provide feedback from several sources. The incidents of plagiarism in undergraduate academic writing in the English Language Teaching Department of Canakkale Onsekiz Mart University, Turkey in the last four consecutive years were considered. 881 students in the Advanced Reading and Writing Skills course between 2010–2011 and 2013–2014 academic years participated. The results indicated that by the implementation of Turnitin, the students started to plagiarise less. Later, the study focused on plagiarism incidents in 2013–2014. 28 students were accused of plagiarism and interviewed by the lecturer to reveal their reasons of plagiarism. They were instructed how to benefit from digital feedback, a fairly new term proposed by the researcher with reference to plagiarism detector reports. They revised and resubmitted their papers. 17 of them managed to submit plagiarism-free assignments. Although the results indicated a decline in the number of plagiarism incidents after the implementation of Turnitin; precautions should be taken to encourage students to prepare plagiarism-free assignments and to submit them since the implementation of plagiarism detectors increases the number of non-submitted assignments.

Key words: academic writing; anonymous peer review; digital feedback; multiple types of feedback; Turnitin

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RESULTS OF SIMILARITY ANALYSIS OF ONLINE NEWS IN CZECH REPUBLIC

Ondřej Veselý

Abstract:

This paper presents the result of a six-month long press monitoring of major online news publishers in the Czech Republic. News media play an important role in education, but it has been often hypothesized such media is losing its quality under the pressure of new technologies. To help understand this change we focused on the issue of text re-use as a partial quality indicator. To study this issue it is necessary to recognize its occurrence and find its characteristics to reveal the main causes of text re-use. We collected more than 60,000 articles; both regional and national. Then we used a customized tool to process each text to determine lexical similarity for relevant combinations of the news articles. In following analysis we were able to quantify and visualize the rate of occurrence of re-used text as related to their similarity level or other factors. Specifically we found that for 25% of national level news, the majority of its content is reused. A quarter of reused text is provided by Czech News Agency.

Key words: plagiarism, journalism, online news, Czech Republic, text reuse

1 Introduction

The problematic of online plagiarism, text reuse and misconduct concerns many areas of online environment. Although the research is focused mainly in academic integrity in the context of preventing students to create works which fulfill the definition academic misconduct, the most common situation where students are confronted with text reuse is online journalism. The news media has their own code of conduct which forbids plagiarism, but the trade with news articles is common. Usually media takes over the text from a news agency which leads to situation where the same text is published in many online news servers only with minor modifications. But the situation is complicated: “Lack of attribution and plagiarism can create a special problem for journalists. As numerous examples indicate, there is confusion about the sometimes fine line between lack of attribution and plagiarism.” (White, 1989)

In Czech Republic, there is only one Czech non-specialised news agency called Česká tisková kancelář (ČTK, 2015).

In the context of preventing academic plagiarism it is important to clearly communicate the difference between newspaper articles and the student’s academic or school work. Thank to project *Impact of Policies for Plagiarism in Higher Education across Europe* (IPPHEAHE, 2015) we have a lots of data about text reuse in academia but there is no precise data about the situation in news journalism. We start with the fact, that “it is known that more than 10–20% of articles collected by portal sites are nearly identical or quite similar” (Chang-Keon R., 2009)

Let Chang-Keon Ryu’s statement be the starting hypothesis we try to clarify.

2 Methods

The results have been created in three steps

1. dataset creation
2. plain text data extraction
3. similarity analysis
4. data visualisation

2.1 Dataset creation

The dataset is a collection of news articles. The articles were collected by method called web scraping. Since the beginning of year 2014, every 10 minutes each of the selected news servers has been checked for new textual content via RSS protocol. If new content is detected, it will be time-stamped and stored in the database. The dataset of national articles consists of 64.806 articles, the regional dataset is based on 7.636 articles.

The main criteria for news server selection was the existence of RSS interface, the second one was it's traffic listed in Netmonitor service (SIPR, 2015).

2.2 Plain text data extraction

Every article has been converted from HTML format to a plain text. Usually, not all text on the page is part of the article content (for example textual advertisements), these parts have been detected and stripped.

A random inspection of the functionality has been manually performed for some of the stripped text for each monitored server. In is possible that in rare cases not all of the text from the scraped article are used and saved for analysis.

2.3 Similarity analysis

Every day each new article has been compared with other articles within a one-week time window. The length of the windows is limited because of computational performance. But as it can be seen on fig. 1, the chosen window size is big enough to detect almost all similarity occurrences, most of the similar articles are released within the same hour and more than 99% of cases happen within 48 hours.

The basic algorithm for lexical similarity has been used. Every similarity nalysis of a pair of the articles A and B produces two values

1. how A is similar to B $\Leftrightarrow s_{AB} = \text{sim}(A, B)$
2. how B is similar to A $\Leftrightarrow s_{BA} = \text{sim}(B, A)$

For example for texts A = "aaabbb" and B = "aaa", the results are

$$s_{AB} = \text{sim}(A, B) = 50\%$$

$$s_{BA} = \text{sim}(B, A) = 100\%$$

For the purposes of this article the direction of text reuse is not as relevant as the rate of occurrence of the reuse: the higher of this pair of values is used.

A random inspection of the functionality has been manually performed for some of the similarity text pairs for each monitored server via development interface on fig. 2.

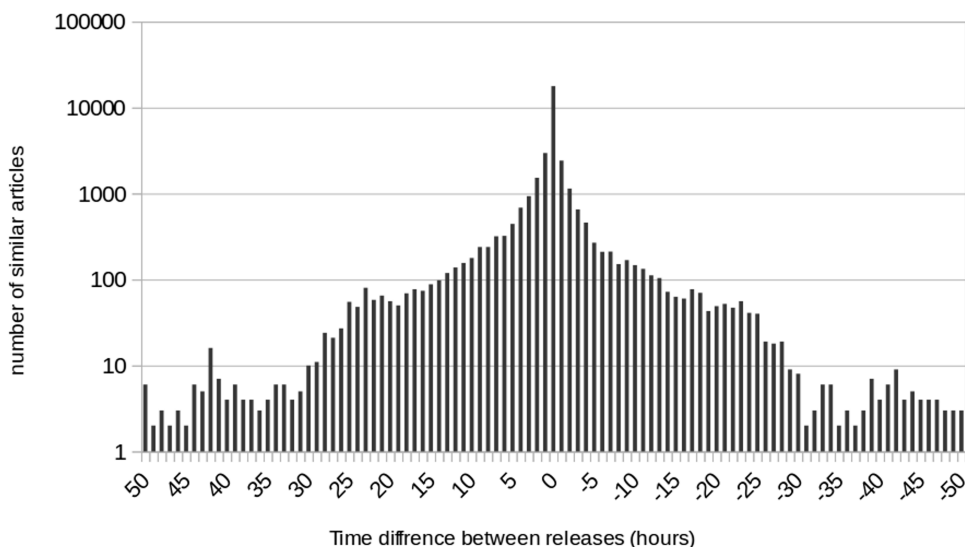


Figure 1. Relation of number of similar articles based on their published time difference (please note the logarithmic scale).

Rusko zablokovalo prohlášení Rady bezpečnosti OSN o Ukrajině

Echo24

Rusko zablokovalo prohlášení Rady bezpečnosti OSN o Ukrajině NOVE 25. leden 2015 | článek
Boje na Ukrajině Rusko v Radě bezpečnosti OSN zablokovalo přijetí prohlášení, které odsuzovalo zintenzivnění bojů na východě Ukrajiny a ostřelování přístavu Mariupol. Při sobotním zasedání rady Moskva odmítla podpořit britský návrh, který mimo jiné kritizoval jako nezodpovědné výroky proruských postavců, kteří odmítli další jednání o příměří a oznámili ofenzívu směrem na západ. Ostřelování Mariupolu, který je pod kontrolou ukrajinské armády, si v sobotu vyžádalo nejméně tři desítky mrtvých civilistů a téměř stovku zraněných. Prorůši separatisté odpovědnost za útok odmítli, ale pochybnosti vyvolal jejich vůdce Alexandr Zacharčenko, který nejprve oznámil zahájení ofenzívy a později to zase popřel. Útok odsoudila Evropská unie, Organizace pro bezpečnost a spolupráci v Evropě (OSBE) i Severoatlantická aliance. Později se k silné kritice přidal i generální tajemník OSN Pan Ki-mun, jenž ve svém prohlášení rovněž odsoudil postup postavců, kteří ohlásili plán dobytí hranice Doněcké oblasti vzdálené zhruba sto kilometrů od nynější frontové linie. Británie chtěla, aby podobné stanovisko zaujala i Rada bezpečnosti jako celek a žádala i nezávislé vyšetřování útoku na Mariupol. Rusko se ale postavilo proti, zejména kvůli výpadům proti ukrajinským proruským vzbouřencům. Ruský zástupce při OSN upozornil, že RB v minulosti vždy odmítala odsoudit agresivní prohlášení ze strany ukrajinské vlády. Patnáctičlenná Rada bezpečnosti může sva rozhodnutí přijímat jen pokud není proti některý z pěti stálých členů: Rusko tedy má, stejně jako USA, Británie, Francie a Čína, právo veta.

Na ukrajinský Mariupol dopadaly granáty

Hospodářské noviny

Rusko v Radě bezpečnosti OSN zablokovalo přijetí prohlášení, které odsuzovalo zintenzivnění bojů na východě Ukrajiny a ostřelování přístavu Mariupol. Při sobotním zasedání rady Moskva odmítla podpořit britský návrh, jenž mimo jiné kritizoval jako nezodpovědné výroky proruských postavců, kteří odmítli další jednání o příměří a oznámili ofenzívu směrem na západ. Ostřelování Mariupolu, který je pod kontrolou ukrajinské armády, si v sobotu vyžádalo nejméně tři desítky mrtvých civilistů a téměř stovku zraněných. Prorůši separatisté odpovědnost za útok odmítli, ale pochybnosti vyvolal jejich vůdce Alexandr Zacharčenko, který nejprve oznámil zahájení ofenzívy a později to zase popřel. "Začal útok na Mariupol. Bude to nejlepší učení památky všech našich padlých," prohlásil v sobotu podle agentury RIA Novosti Zacharčenko při klázení věnců k místu, kde v Doněcku ve čtvrtek na tramvajové zastávce zemřelo osm lidí a 17 utrpělo zranění. Později ale slova o ofenzívě vzal zpět. "Nikdo se na město zautičit nechystá," řekl podle ruských médií. Ukrajinské ministerstvo obrany uvedlo, že vzbouřenci páli na Mariupol z raketometů. Podle mariupolského starosty šlo o "naprosto jasnou ruskou agresi". Granáty zasáhly obytné domy, mateřskou školu, dvě školy, tržnici a obchody. Útok odsoudila EU, Organizace pro bezpečnost a spolupráci v Evropě i Severoatlantická aliance. Později se k silné kritice přidal i generální tajemník OSN Pan Ki-mun, jenž ve svém prohlášení rovněž odsoudil postup postavců, kteří ohlásili plán dobytí hranice Doněcké oblasti, vzdálené zhruba sto kilometrů od nynější frontové linie. Británie chtěla, aby podobné stanovisko zaujala i Rada bezpečnosti jako celek, a žádala i nezávislé vyšetřování útoku na Mariupol. Rusko se ale postavilo proti, zejména kvůli výpadům proti ukrajinským proruským vzbouřencům. Ruský zástupce při OSN upozornil, že Rada bezpečnosti v minulosti vždy odmítala odsoudit agresivní prohlášení ze strany ukrajinské vlády. Patnáctičlenná rada může rozhodnutí přijímat, jen pokud není proti některý z pěti stálých členů: Rusko tedy má, stejně jako USA, Británie, Francie a Čína, právo veta. Obyvatelé Mariupolu si připomněli památku civilních obětí ostřelování města. Foto: Reuters

Figure 2. Example of positive similarity analysis of two articles; screenshot from development interface

2.4 Data aggregation and visualisation

8 similarity classes have been recognised ($\text{sim}()$ over 20% to 90%). For each class the number of article pairs with corresponding similarity level have been counted (section 3.2).

Also the number of similar articles between different kinds of monitored servers has been visualised to find out the text reuse characteristics (section 3.1)

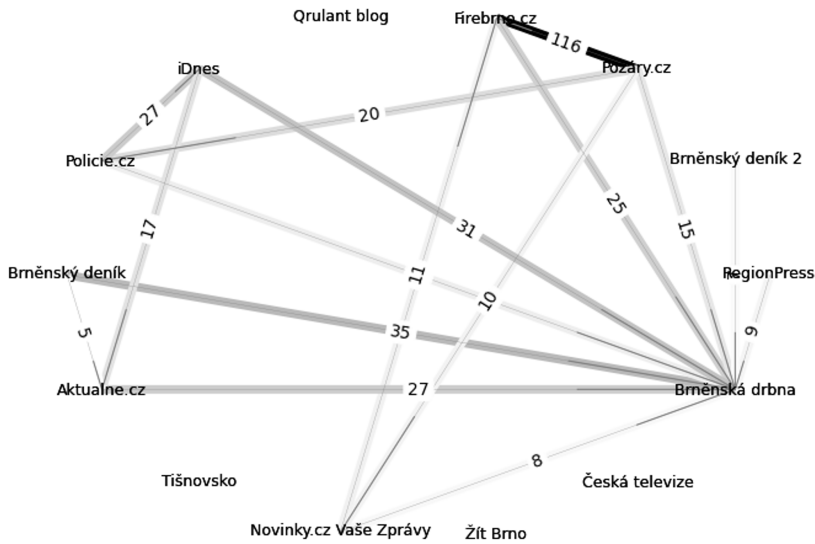


Figure 3. Text reuse between regional news servers, and some other content sources

3 Results

3.1 Content similarity between individual news servers

Two circle multi-relational graphs show the rate of text-reuse between monitored servers. Two sets of servers were used

1. regional – news servers focused on South Moravian Region of Czech republic; also one blog and two public reporting services (police and firemen) has been selected for mutual analysis
2. national – news servers focused on national news coverage

The relation values are the sum of the articles with similarity level higher than 50% published between September 4th 2014 and March 3rd 2015. In both sets the articles which declare that its original source is ČTK have been excluded from dataset.

Except common regional news servers, some other content sources have been added to visualise its interconnections. Their specifics are described in Table 1.

Heavy text reuse was discovered between a specialised news server just for fire events Pozary.cz and municipal police website for press releases Policie.cz. It can be deduced that these servers have a common owner or both servers have some kind of agreement.

Table 1
List and description of specific content sources from graph on fig. 3

Žit Brno	opinion journalism magazine, political satire
Firebrno.cz	Firemen website for press releases
Pozary.cz	Specialised news server just for fire events
Policie.cz	Municipal police website for press releases
Qrulant blg	An example of common blog focused on regional news

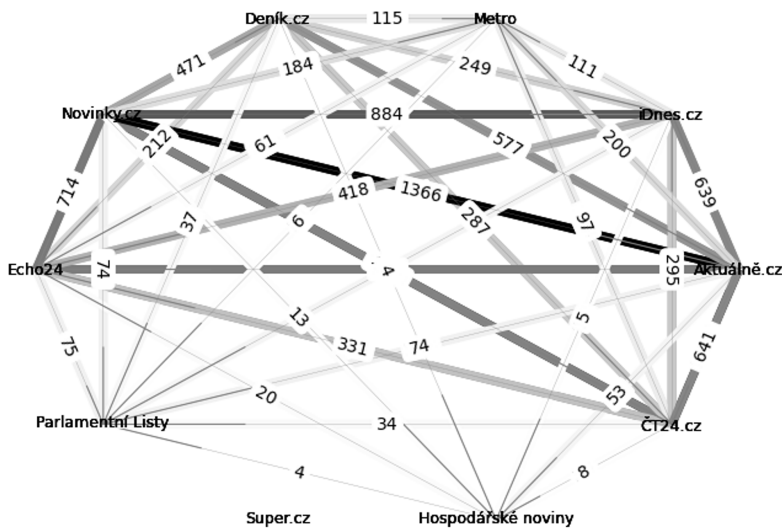


Figure 4. Text reuse between national news servers

Another interesting pattern was found at the server Brněnská drbna which is connected to all other content sources. Closer examination showed the most probable cause; the server publishes most press releases without any change.

As can be seen from the fig. 4, the Super.cz server appears to have no text reuse activity detected. The reason for this regularity is that Super.cz is not a primary news sever, but more like entraining tabloid completely producing its own content.

From the other relations the focus of each server can be deduced on production of its own content. For example Novinky.cz is the most visited news portal in Czech Republic

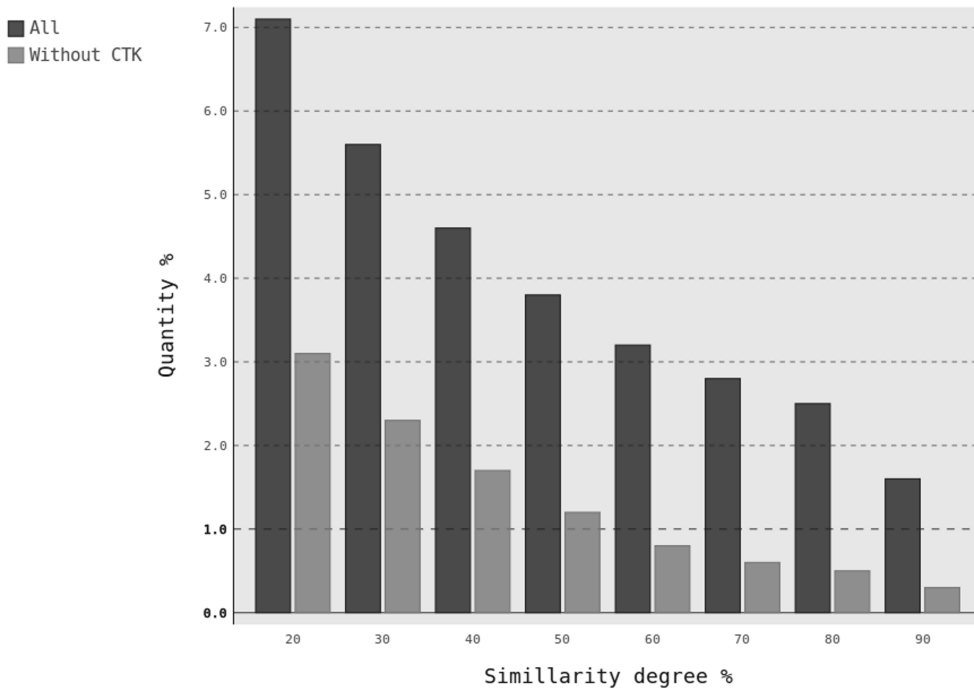


Figure 5. Overall similarity on regional news servers dataset shows the number similar articles for each similarity class. The lighter columns show the overall similarity values only for articles which had not been produced by ČTK

(SPIR, 2015) known for its low cost content production in large quantities. The graph confirms this general impression.

3.2 Overall content similarity analysis

9 similarity classes were recognised (10% to 90%). For each class the number of article pairs with corresponding similarity level were counted. Also the set of articles originally made by ČTK were separated from the other articles.

Unlike the graphs from section 3.1 these were generated from articles published since 1st January 2014 and news servers were included exclusively.

The fig. 5 shows that the influence of Czech news agency to text reuse is strong, especially for text with highly similarity degree. In comparison with overall similarity on national level, the ratio of it is much lower.

It is estimated that the amount of very similar content in regional media is about five times lower in comparison with national level.

The fig. 6 shows that the influence of Czech news agency to text reuse is weak, especially for text with highly similarity degree in comparison with regional articles. (graph 4)

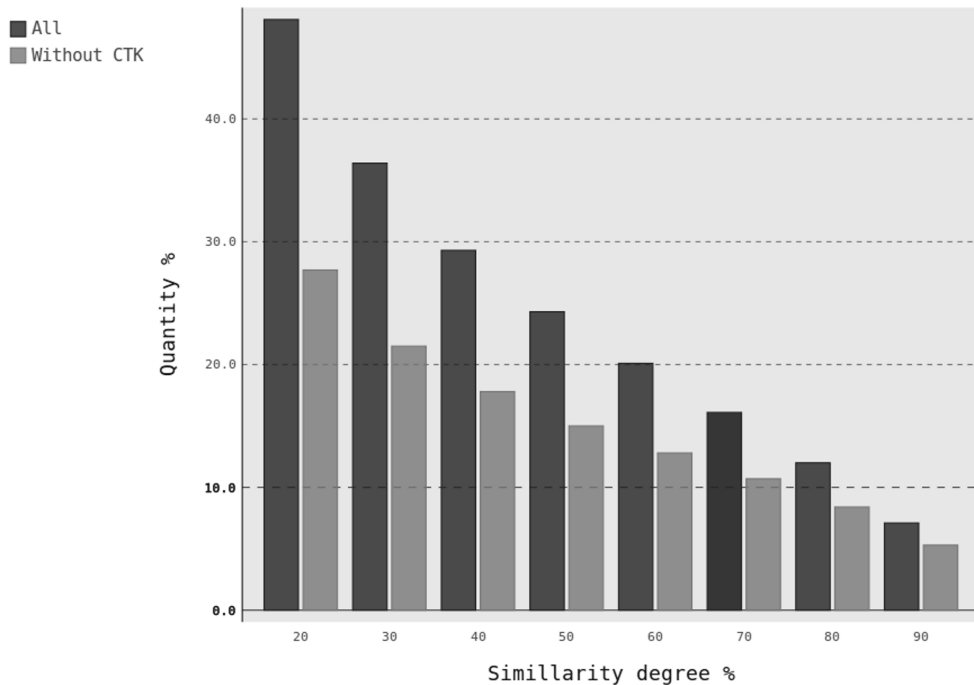


Figure 6. Overall similarity on national news servers dataset shows the number similar articles for each similarity class

On the fig. 5 and 6, we can see that the amount of similar content in national media is about five times higher in comparison with regional level.

4 Discussion

The dataset offers a lot of data analysis opportunities, for example detection of most reused text or topic funnel visualisation. Also the method of similarity evaluation could be more semantic-based than lexical to detect the text modification while keeping the same meaning.

Another improvement would be a separation of international news agencies the same way as it has been done with ČTK. This step would quantify the other sources of texts the media uses.

The results can be used in Academic Integrity lessons to illustrate on hard data the different attitude of journalists and academics to text reuse.

The monitoring system is going to be improved to provide automatic validation of news authorship and therefore monitoring of journalism code of conduct compliance. In this context the cooperation with Open Society Fund (OSF Prague 2015) has been established to include press news into the dataset for further analysis. The OSF Prague also nominated results in this paper for Journalism Award, which objective is “to help

improve journalistic professionalism and quality. For this reason, the award emphasizes investigative journalism, which acts as a kind of watchdog of democracy.” (OSF Prague 2015). Eventually some other servers known for spreading propaganda were added into long term monitoring.

5 Conclusion

From the graph 5 it could be concluded that approximately 10% of all articles are 80% or more similar to another one published by different server which makes Chang-Keon Ryu’s statement valid in Czech environment considering the national dataset.

The ČTK is responsible for 20–40% of text-reuse cases on national level, but other causes have not been revealed. On the regional level the ratio of similar text is five times lower and the most similar articles are created by ČTK.

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PAPERS—SECTION III
INTERNATIONALISATION, STUDENT MOBILITY AND
ACADEMIC INTEGRITY

STUDENTS ORAL PRESENTATION PEER EVALUATION: HOW CONSISTENT IS IT?

Hanas A. Cader

Abstract:

In today's tertiary education system, the importance of students' critical evaluation skill is overlooked. Previous research indicate that the students and entry level workers, listening and speaking skills are considered to be important, yet the formal presentation skill is ranked the most important skill (Maes, Weldy, & Icenogle, 1997; Ferris, 1998). The students' initial career success is very much related to in business class oral presentations and little research had been focused in the related area (Campbell et al., 2001). Many researchers have emphasized the need to have more courses directed towards the development of oral presentation skills (McCole, 2004). Most often the students are evaluated by the faculty and very rarely by fellow students or peers. As a result, the students lack peer evaluation skills to evaluate what constitute a good oral presentation. Hence, the students are less likely to have the capability and understanding of the assessment process or criteria (Patri, 2002). Although, in some circumstances, the students are given opportunities to evaluate their peers, the consistency of their evaluation had been a concern for the teachers. It is important to examine the consistency of the students peer evaluation, which may have consequences in student performances, if the peer evaluation is part of grading. In this paper, the consistency of students' peer evaluation of oral presentation was examined using a multivariate repeated measures analysis of variance (MANOVA).

In Spring 2010, 22 undergraduate students were registered for the Seminar in Economics course (Econ 485). This course is a core for economics majors and also considered to be a substitute for any other 400 level business classes. Of the 22, only 17 of them were included in the study. Part of the course requirement was that the students have to present three oral presentations either from published papers or other papers that they are working on for the other economics or business related courses. Apart from preparing a summary of the selected paper, the students have to make an oral presentation for 15 minutes. After the presentation, other students were allowed to ask questions and other students were required to evaluate the presenter. Students peer evaluation was considered as part of their class participation. Except, the presenter other students were given presentation evaluation sheet and the oral presentation was evaluated using speaker, presentation, relevancy of the topic, understanding difficulty and presentation and motivation for further leaning. These concepts were measured using a five point Likert scale. Once the students evaluate their peers based on above concepts, they were asked to give a score (out of 100) for the presentation. If the students peer evaluation is consistent, then whenever there is an equal total weight of the assessment of the concepts the students score should be equal.

There were five male students and twelve female students were in the class. Except, three students all the other students presented three oral presentation while the rest presented two presentation. In this paper there it was found that students peer assessment was not consistent and women are relatively more consistent than men.

Key words: Oral Presentation; Peer Evaluation; Skill; Consistency

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A NEW BREED OF GHOST-WRITERS: EXPLORING THE NEW THREAT TO THE ACADEMIC COMMUNITY VIA INTERNATIONALISATION AND SOCIAL MEDIA

Shiva D Sivasubramaniam, Sharavan Ramachandran

Abstract:

Contract cheating (or ghost writing) is a growing problem in higher education that can only be handled with academic wisdom/experience. Signs such as using quotes from abstracts, verbosity, and perfection with technical word usage are good indicators of this offense. This is because the ghost writers are usually professionals with higher standards literacy than the students. However, as a result of internationalisation many students with Western post-graduate qualifications are returning to their native countries, where employability is restricted. Having studied the internationalised curricula and established global links via social media, some of these students have started new ghost writing services. These services are easily accessible, economical, and above all, provide realistic essays that resemble a genuine original student essay; with expected verbatim as well as common student mistakes. This interview based study confidentially investigated the attitudes and the justifications of these “ghost-writers” from a developing country.

This study has highlighted several high calibre post-graduates who have understood the Western ways of scientific writing, who have produced a network of “consultancies” with the ability to share field specific “contracts” amongst them. Since they advertise by social networking sites, this trade cannot be easily detected. Most interestingly, there are country specific consultancies with graduates from universities of that country. Since they themselves are past students, making contacts is easy for them. This paper will further discuss the wider issues arising from these interviews and discuss the possible ways to tackle this new threat to academia.

Key words: Plagiarism; Internationalisation; Social media, Ghost writers; Paper-mills

1 Introduction

The term ghost writing has several distinct meanings depending on the levels of involvement of the ghost writer (POGO, 2011; Bosch and Ross, 2012). It is often linked to contract writing in which the author who takes the credit often acknowledges the ghost writer as the “editor” of his article. In this case, the ghost writer does everything from start to finish including research, writing and editing but with constant supervision by the “author”. Also the former will be attributed by latter (e.g. in most biographies) and therefore it is ethically acceptable. The second form is where the ghost writer is only employed to edit and rewrite a draft (often misnamed as “proof-reading”). In the next form, the ghost writing only comes in after the research phase but the bulk of the article is written by the ghost writer. The final one is simply using (or paying) ghost writers to do the entire project from start to finish without any contacts with the authors (e.g. paper-mills).

While many universities are keen to deter, detect and discipline plagiarism practices, there is less focus on addressing the issue of ghost writing or buying essays from the

paper-mills (Molinari, 2014). An article by Basken in the Chronicle of Higher education (2011) highlighted that ghost writing practices are prevalent even amongst academic communities. As Rothschild (2011) argued, although ghost writing is technically plagiarism under strict definition, many institutions fail to address this. The main reasons for this “negligence” are (a) the belief that a professionally ghost-written article can easily be identified either by plagiarism detection software or by its style and use of citation; and (b) the essays from most paper mills are too expensive for undergraduates to buy, when in fact it is only going to contribute a percentage of his/her final degree. However, it is astonishing to note how the internationalisation of education, coupled with utilisation of social media by the young generation made these assumptions wrong (or no longer valid). So what is the contribution of internationalised education and social media to ghost writing? Many of the students with post-graduate Western qualifications are returning to their native countries where they face restricted employment opportunities. Having studied the internationalised curricula and established global links via social media, some of these students have started new ghost writing services. These services are easily accessible, economical, and above all, provide realistic essays that resemble an original student essay; with expected verbatim as well as common student mistakes. This interview-based study confidentially investigated the attitudes and the justifications of these hired “ghost-writers” from a developing country.

2 Methodology

The idea of carrying out this explorative study was initiated after reading a face book post (advertisement) about “high quality help for writing assignments”. Following this, research on social media such as Face book®, Twitter®, and What’s-App® was carried out to establish the frequency of posts on the topic “academic writing services”. The contacts from these adverts were then followed up welcoming them to take part in this study. All responders were given details about the purpose of this study, its mode of investigation and the ethical aspects including maintaining confidentiality. The study included interviews with ten ghost writers/organisations (representing different subject area) who were all educated in Western countries and had returned to their country of origin. These interviews were conducted under UNESCO’s “Norms of Journalistic conduct” as described within the country in which these interviews were carried out. Since almost all of them considered their work as a “professional writing service” or “project”, the term “ghost writing” was avoided in the interviews. The purpose of these interviews was to assess (a) individual background/circumstances for starting or joining this service, (b) its popularity, (c) its reliability/affordability and (d) whether they consider their service as academic dishonesty. Some example (but not exclusive) questions under each category are given below:

A. The Background (reasons for starting/joining)

- What was the main reason for starting this service?
- Were you confident that you had the experience and/or expertise to start this project?
- When you started this “project” how many others were involved?

B. Popularity and accessibility

- How many projects per month do you usually undertake?
- How do you advertise? (Whether you advertise? or students contact you?)
- How do you network? Do you share expertise? If so, how do you allocate/share projects? Are staff well trained to meet the International Standards?

C. Reliability and affordability

- What is your price range? And why do you think it is appropriate?
- Who decides on price? You or the customer?
- Do you think your price range is affordable by the home/international students?

D. Views on academic dishonesty and plagiarism

- Do you know about academic dishonesty? What is your view regarding plagiarism?
- Do you think that your services contravene the code of practice in academic writing? If not, why?
- Do you take steps to avoid plagiarism in your projects? If so, how?

3 Results:

Social media searches:

Initial social media searches have revealed several small to medium size advertisements, blogs and chatting strings about these “writing services”. They were embedded as tweets, or facebook entries, which are linked to a home page. Some of the example screen shots are given in figure 1.

As can be seen, almost all of them are openly offering “writing help” and appear to be addressing university students (both UG and PG). At least one of them has managed to post his advertisement on the common face book pages of a university. It is also interesting to note some of them are even assuring (or claiming) that the essays written by them would have less than 06% Turnitin© similarity matches (red circled in figure 1). This shows that these sites are aware of the use of plagiarism detection software in higher education. Some even offer thesis write-ups at PhD levels.

3.1 Qualitative data obtained from Interviews:

Authors found that the interviewees were extremely open and honest in their answers. They were clear in expressing their opinions without any fear. Interestingly they all have a range of post-graduate qualifications (MSc, MA, MPhil, MBA, PhD etc.) from Western countries. Majority of them (who were interviewed) are in jobs not entirely challenging for their graduate attributes. The interviews also revealed they were unable to find suitable jobs for their qualifications and therefore started this “service” in order to boost their income.

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Figure 1. Example advertisements on common social media websites [These advertisements are taken as screen-shots from social media and anonymised]

3.1.1 The beginning:

As mentioned above, it looks like most of these services were started by the students who returned to their home country after finishing their post-graduate studies in another country. Some started this service as solos while others formed a consortium of four friends. At least one of them claimed that he never intended to start this as a business model but continued after realising his first couple of assignments were highly successful; because of this he became popular. He feels there is still a high demand for “writers”. Another writer holds a doctorate in bioinformatics and had worked as a lecturer for a short period. During this time, he has developed contacts with student communities. As for the incentive or the reasons for starting this, one replied “*It was my own effort to start this service to our students studying overseas. I had utilized my*

acquired analytical and vocabulary skills to address the needs of our students.” Another new writer said *“one of my friends gives me projects to complete but I am planning to advertise through social networking sites”*.

Although it appears these “writers” started ad-hoc, they have established a good network and are able to share projects and practices. As explained above, some of them advertise only in the social media as posts/tweets (not as advertisements). In contrast, others felt that advertising does not have an impact on their business (and it is a waste of money). One said *“Advertising through main internet servers does not have any impact in our promotion; also main providers like Google have banned promotions for such report writing services”*. In his opinion, media can be used as a bridge for creating awareness and also it can give the opportunity to know the market status. Another writer, who started his service recently, stated *“I mainly get projects through my references and contacts”*. *“Perhaps, my outstanding performances in various projects speak a lot, which I feel (is) better than commercial advertising.”* However, he did not deny the fact that social media played a part in his “popularity”. Interestingly, everyone agreed on the fact that the probability of students going to them via referrals and contacts (by word of mouth/social media) is higher than advertising.

The interviews also revealed that these writers are highly successful. One consortium of writers proudly claimed *“the frequency of our writing is constant and we get projects more frequently by any other means; so, our work and our service will fetch us further projects”*. Another one quoted *“It depends upon the needs of the students and university. As I am handling the services to all degree students, irrespective of their level of study, it will be busy all the year around. For international dissertation services, it will be very busy during the months of June and January”*. Due to this high demand, he is now recruiting and training MSc/PhD holders from his own country. Most of them admitted they have constant demand from students overseas and at home. As for expertise in a given subject, they share the projects by networking. They would ensure the project is handled by a subject expert in that field. For example, if a bioscience project is acquired by a provider with social science expertise, he would refer this on to an individual with bioscience specialism and vice versa.

3.1.2 Reliability:

With regards to the reliability of their service, they all have a clear understanding about academic writing and plagiarism avoidance. In fact some of them even use plagiarism detection software to perfect their essays (i.e. to reduce the percentage matches). An example email from a senior writer to his apprentice, highlighting the plagiarism issue with instructions to rephrase the essay and screen shots of a Turnitin© report, is given in figure 2.

After showing this example, the provider quoted *“we train them (the apprentice) to meet the international standards and requirements. By doing this, we can deliver plagiarism-free services to our international clients and customers”*. The following excerpt summarises the attitude and the understanding of these writers. *“Although, the students from this (anonymised) country are highly focused on knowledge, they lack far behind when it comes to execution. This will mask their career growth. The main reason*

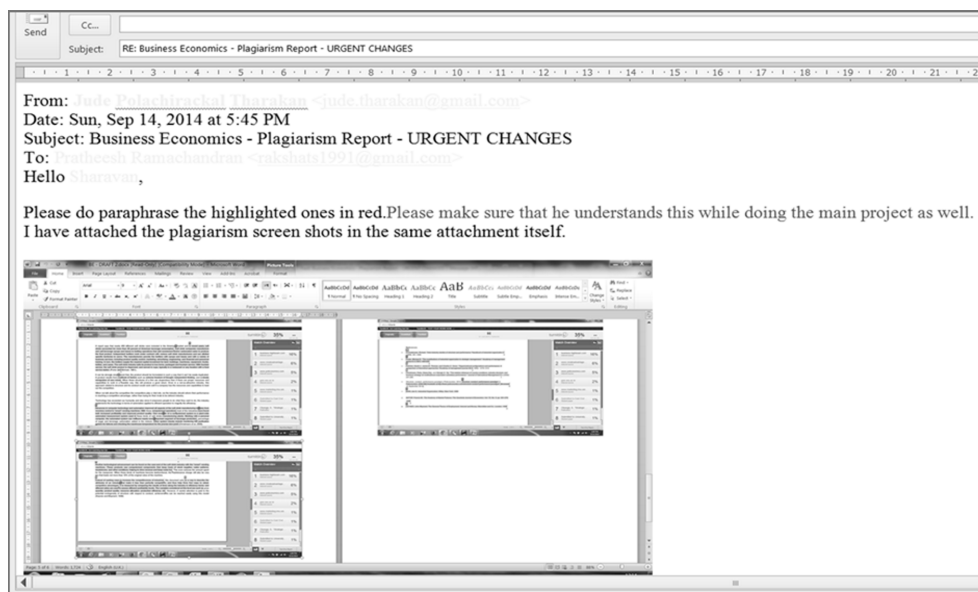


Figure 2. Example communication between ghost writers regarding a Turnitin© report [Personal identifiers such as names, email addresses are removed as requested by the interviewee]

is that, they are not taught the importance of writing at preliminary levels. They are not aware of plagiarism. This is mainly due to the design of our (anonymised) educational system. Consequently, their research is not recognized in the international platform. We (the writers) simply helping them to get recognised". This clearly shows they are committed to their customers and promise to write better essays and avoid plagiarism. One writer even accused *"the lack of support from the university tutors with their course work is the main reason for students to seek the assistance from us."*

Worryingly, all of them proudly claimed that none of their assignments had been identified as plagiarised. This claim cannot be verified by the authors. When prompted with the question about the morality of performing this service, their argument was that the process of "writing" usually involves the customer (the student). They have a constant dialogue with the student from the start, making them read their drafts and comment; by this way student would understand the essay and fulfil the learning outcome. In other words they are claiming their role as "editors" than "writers".

3.1.3 Affordability:

Authors found that these services are substantially cheaper than Western paper-mills; especially for an under/post-graduate who could afford to pay the international tuition fees of the UK or USA. The charging practices differ from writer to writer. One claimed he charges 3 to 5 UK pence/word (their currency is anonymised to protect identity) and the minimum charge is 100 pounds. Others said their charges depend on the complexity of the project from 150 for a UG level assignment to 1000 for a PhD thesis.

4 Summary of findings:

Social networking has become a means of discussing course work and to support classroom work amongst students of higher education (Roblyer et al, 2010; Connell, 2009). These websites have several millions of unique users/visitors, and the number of visitors is growing each year. Businesses have noticed the potential of these websites as an advertising platform (Todi, 2008). As explained in the introduction, as a result of rapid globalisation of education many international students with Western post-graduate qualifications have returned to their native countries, where employability is restricted. Having studied the internationalised curricula and established global links via social media, some of these students have started new ghost writing services. These new professional ghost-writing services are becoming popular in the developing countries. This study investigated the attitudes of some ghost-writers, together with their justifications for starting up this venture. Since students are now using social networking sites to obtain support for their educational needs (Peluchette and Karl 2008; Roblyer et al 2010), these providers are directly and discretely approaching the students. The fact that they post/tweet these advertisements as an entry (not as proper advertisement) clearly shows their efficiency in targeting the students without creating a media outcry. Amongst those who were interviewed, some of them realise that their services are not legal and can be blocked by the service providers. In fact this is shown in the interview in which one admitted not using Google© advertisement to avoid such problems. Hence they use web-chatting, tweets and other form of social media to attract students from them. By this way they are efficient in attracting the target group. From the interview it is clear that the main reason to get involved in this service is the lack of job opportunities. This might be the direct result of internationalisation of education, without addressing core competency requirements of a global market (Teichler, 2004). This actually shows that a highly professionalised international education may not be suitable for their country of origin. In the authors' point of view, a lack of suitable jobs may have been an important contributing factor for their decision to start this venture.

Another point to note is the price. As it is much cheaper than the paper-mills of developed countries like UK, students may opt for these written services.

The most interesting (but worrying) finding is the fact that these providers are relatively new graduates who have just finished their education. Thus they understand the learning outcomes, marking criteria, and what is expected from the assignment. Upon scrutiny, some of their completed assignments (not shown to protect confidentiality), realistically resemble a genuine student essay; with expected verbatim as well as common student mistakes. It was impossible to identify any general tell-tale signs of a professionally written assignment. In addition, as can be seen in figure 2, at least some of them are using Turnitin© (or similar) websites to correct any potential sentence similarities and avoid detection. In that email (figure 2) he warns the apprentice to explain about plagiarism avoidance to the student customer (marked in red font). On confrontation, he admitted they clearly advise students how to address academic misconduct investigations. They are clever enough to use the student's (customer) name and his respective university registration numbers for Turnitin© checks. So

if detected the student can claim that it was him who checked the assignment for accuracy before submission. Regarding the question of ethics in academic writing, their arguments were somewhat varied. By showing evidence, some tried to prove customer involvement throughout the project and therefore argued it is not unethical or immoral. Others justified their service is similar to English Language Editing (ELE) services offered by many journals. They pointed out that it has been a common practice to hire grant-writers by the Western academics and questioned how their service is dissimilar to this. Despite this, authors were astonished to hear about their claim of writing PhD thesis. Since PhD work should have an experimental component which needs constant interaction with respective supervisor, it should be impossible to employ ghost writing. Authors were not able to explore how ghost writing could effectively be carried out at PhD level. It should be noted that this study is reporting the claims by these ghost writing. Therefore it is virtually impossible to check the validity of all of their claims. As the title of this article clearly states (also mentioned in the methodology), this is an exploratory study to highlight this growing problem; checking the validity of all their claims is beyond the scope of this study. It is also worth noting the interviews were conducted in compliance with the directives of the press council of the country in which this study was conducted. In authors' point of view, investigating the validity of these interviews would contravene this directive.

Overall, the authors found that these writers have a clear understanding about their work and above all know how to justify their existence. This new generation of ghost-writers are going to be a major challenge for the internationalised higher education system. Therefore it is necessary for institutions to focus and redesign their assessment strategies by removing the chances of ghost writing. This needs a holistic approach to change the strategies from assessment as a “measure of learning” to evaluate the “learning process” in the form of continuous assessments, which needs constant student engagement and input. In this way, academics can monitor student involvement and minimise the chances of them using ghost-written articles.

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PAPERS—SECTION IV
NATIONAL AND LOCAL RESPONSES TO PLAGIARISM

CORRECT CITATION PRACTICE: AN ATTEMPT TO RANK SHADES OF GREY IN PLAGIARISM

Lex M Bouter

Abstract:

In 2012 a prominent Dutch scientist was accused of self-plagiarism. This was massively picked up by the Dutch media. A confusing debate followed about whether plagiarizing one's own work would be research misconduct. The Royal Netherlands Academy of Arts and Sciences responded by installing a committee – of which the author of this abstract was a member – that was asked to “clarify how issues in the transitional area between plagiarism and self-citation should be interpret and assessed.” In April 2014 the resulting Academy Advisory Memorandum appeared (<https://www.knaw.nl/en/news/publications/correct-citation-practice>).

The memorandum sketches the spectrum from correct reuse of texts, ideas and other published materials to clear instances of plagiarism. It is concluded that there are many shades of grey and it is not always easy to judge whether a specific instance should be labelled as research misconduct, as questionable research practice, or as acceptable behaviour. A taxonomy of reuse of materials without correct attribution is proposed, taking into account the harmful consequences of the behaviour at issue.

The presentation will focus on the analyses and recommendations of the memorandum and place them in the context of the specific case that prompted its production. Also the consequences for codes of conduct and education in responsible conduct of research will be discussed.

Key words: plagiarism, self-plagiarism, taxonomy, reuse of materials

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PROMOTING ACADEMIC INTEGRITY HELPS NATIONAL ECONOMY

Tomáš Foltýnek, Martin Surovec

Abstract:

The Academic Integrity Maturity Model (AIMM) was developed to measure the level of academic integrity maturity for particular country. Using the values of AIMM for EU countries, this paper examines the relationships with macroeconomic indicators. The correlation between AIMM and GDP is shown – the more mature the academic integrity in particular country, the richer country. Moreover, the relationship between AIMM and unemployment is examined, as well as between AIMM and added value of tertiary education (in terms of wage difference between secondary and tertiary educated people). Finally, the positive correlation between AIMM and Corruption Perception Index is shown. The paper discusses possible causes of these relationships, compares them with other studies and concludes that increasing academic integrity maturity leads to increase of GDP.

Key words: Academic integrity, AIMM, tertiary education, GDP, unemployment, Corruption Perceptions Index

Introduction

There have been several studies examining the relationships between macroeconomic measures and corruption. Mauro (1996) states that decreasing corruption by two points (on a 0 to 10 CPI scale) will improve GDP per capita by almost 0.5 percentage points. Leite&Weidmann (1999) do not think the relationship is linear, but found 0.7 to 1.2 percentage point decrease of GDP per capita when corruption increases by 1 point (on 0–6 scale). Tenzi and Davoodi (2000) examined data from 97 countries and found the relationship between corruption and GDP with the correlation coefficient -0.80 and talk about indirect effects of growth of about 0.4 percentage points per 1 corruption point (on 0–10 CPI scale). Abed and Davodi (2000) focused on Eastern European countries with transition economies. They found corruption as the most important symptom of underlying policy distortions and evaluated the impact of corruption to GDP per capita to be 1–1.3 percentage points by 1 corruption point (on 0–10 CPI scale). Examples of other studies proving negative impact of corruption to investment, public education spending, public health spending, income inequality, income growth of the poor, child mortality rate or road quality, can be found in Hodess (2001). These empirically proved relationships between the real GDP growth and corruption rate, are good reason to explore the possibility that also other integrity measures (such as AIMM, see below) may be in correlation with macroeconomic aggregates.

As far as we know, no specific study has been conducted directly on the relationship between academic integrity and economic indicators. However, there have been some studies examining the impact of the environment on (dis)honesty. Researchers (Guiso et al. 2004, Zack&Knack 2001) agree that the importance of trust and honesty of individuals in mutual cooperation of economical subjects is well known. These characteristics

help cooperation, allow trade and support economical growth. The study of Innes and Mitra (2013, p. 733) shows that honesty is contagious: *'Exposed to evidence that a large proportion of subjects is dishonest, individuals are themselves dishonest with greater frequency; conversely, exposed to evidence of predominant honesty, individuals tend to be honest more frequently.'*

Harding et al. (2004, p. 311) conducted a survey among students of second and fifth year of study of two technically focused private universities, who attended school and worked full time. *'Students identify common themes in describing both temptations to cheat or to violate workplace policies and factors which caused them to hesitate in acting unethically'* and expressed the *'relationship between self-reported rates of cheating in high school and decisions to cheat in college and to violate workplace policies.'*

Similar conclusions arise from Lawson's study (2004, p. 198). The survey examined views of more than 200 US students and showed *'strong relationship (...) between students' propensity to cheat in an academic setting and their attitude toward unethical behaviour in the business world'*. This observation was confirmed also by Grimes (2004) in his survey conducted on an international sample of nearly 2500 students. According to the study, students both in US and in the transition economies see violation of rules in the business world as more severe compared to violation of rules in academia. Given pair of similar situations, one from academia, one from work, students who evaluate given situation in academia as dishonest, tend towards the same evaluation of corresponding situation at work, and vice versa.

Previously mentioned findings, combined altogether, underline the importance of academic integrity for economic growth. More integrity in education causes more integrity in business and therefore positively influences the economic growth.

This paper aims to answer the question, whether promoting academic integrity in higher education helps national economy. We will describe the Academic Integrity Maturity Model as a measurement tool for particular countries and find correlations between this indicator and commonly used macroeconomic aggregates.

Materials and Methods

Let us describe the indicators of particular EU countries to compare: The Academic Integrity Maturity Model, macroeconomic indicators (GDP per PPS, unemployment rate, wage difference) and Corruption Perception Index.

The Academic Integrity Maturity Model

The Academic Integrity Maturity Model (AIMM) was designed as a part of the project Impact of Policies for Plagiarism in Higher Education across Europe as a universal measure for quantifying and comparing the maturity of processes and systems regarding academic integrity for particular country (Glendinning, 2013). The development of AIMM was inspired by Carnegie Mellon's Capability Maturity Mode (Paulk et al, 1993).

AIMM consists of nine criteria:

- Transparency in academic integrity and quality assurance;

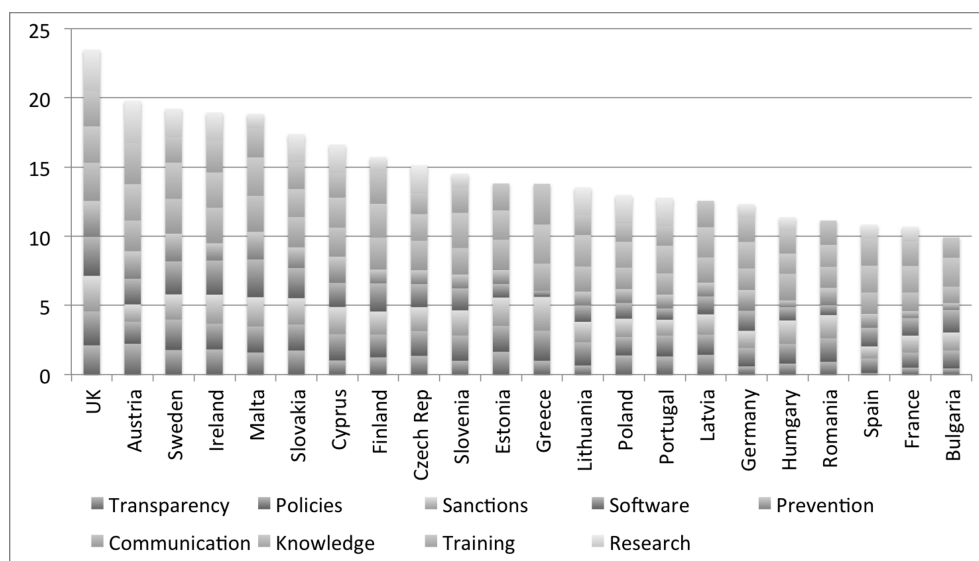


Figure 1. AIMM scores for selected EU countries

- Fair, effective and consistent policies for handling plagiarism and academic dishonesty;
- Standard range of standard sanctions for plagiarism and academic dishonesty;
- Use of digital tools and language repositories;
- Preventative strategies and measures;
- Communication about policies and procedures;
- Knowledge and understanding about academic integrity;
- Training provision for students and teachers;
- Research and innovation in academic integrity.

Values for particular criteria were counted from appropriate answers in surveys, focus groups and structured interviews using weighted average, as well as by an expert assessment. The result for each criterion was a value from 0 (lowest maturity) to 4 (highest maturity). Overall level of integrity of each country was counted as arithmetic average of all nine criteria. Details about methodology, questions used for particular criteria and other aspects of AIMM can be found in IPPHEAE final project report (Glendinning, 2013). The most important fact is that the base for the data was a survey conducted in all EU countries with more than 5000 responses from students, teachers and senior managers in higher education institutions. Counted values of maturity can be seen in Table 1 and are visualized in Figure 1. Authors are aware of the fact that AIMM has not been rigorously tested yet. However, AIMM scores are based on multiple questionnaire items and expert assessments, so triangulation between sources of data helps to minimise the impact of possible inaccuracies.

Table 1

AIMM scores for EU countries (range 0–4, higher score means better performance)

	Transparency	Strategies	Sanctions	Software	Prevention	Communication	Knowledge	Training	Research	AIMM	Rank
Austria	2.23	1.59	1.26	1.85	2.00	2.21	2.63	3.02	3.00	19.79	2
Bulgaria	0.45	1.30	1.30	1.63	0.50	1.19	2.09	1.46	0.00	9.91	22
Cyprus	1.02	1.91	1.96	1.74	1.90	2.10	2.17	1.83	2.00	16.63	7
Czech Rep.	1.36	1.79	1.73	1.67	1.00	2.14	1.92	1.53	2.00	15.13	9
Estonia	1.65	1.87	2.05	0.98	1.00	2.20	2.13	1.93	0.00	13.81	11
Finland	1.25	1.64	1.67	2.03	1.00	2.31	2.45	2.39	1.00	15.74	8
France	0.50	1.09	1.23	1.27	0.50	1.36	1.92	1.83	1.00	10.69	21
Germany	0.59	1.34	1.23	1.45	1.50	1.57	1.92	1.74	1.00	12.33	17
Greece	1.00	2.17	2.45	0.42	0.00	1.98	2.83	2.94	0.00	13.79	12
Hungary	0.79	1.43	1.69	0.95	0.50	1.93	1.45	1.63	1.00	11.38	18
Ireland	1.82	1.87	2.09	2.47	1.25	2.57	2.55	2.33	2.00	18.94	4
Lithuania	0.66	1.68	1.48	1.18	1.00	1.82	2.27	1.44	2.00	13.53	13
Latvia	1.43	1.45	1.47	1.29	1.00	1.82	2.18	1.90	0.00	12.56	16
Malta	1.60	1.88	2.12	2.73	2.00	2.60	2.78	2.15	1.00	18.85	5
Poland	1.39	1.33	1.33	1.14	1.00	1.55	1.87	1.38	2.00	12.98	14
Portugal	1.31	1.52	1.15	0.82	1.00	1.53	2.00	1.47	2.00	12.79	15
Romania	0.92	1.71	1.67	0.72	1.25	1.52	1.59	1.75	0.00	11.13	19
Slovakia	1.74	1.88	1.91	2.18	1.50	2.19	2.03	1.97	2.00	17.39	6
Slovenia	1.00	1.83	1.82	1.59	1.00	1.92	2.54	1.84	1.00	14.53	10
Spain	0.13	1.05	0.86	1.35	1.00	1.55	1.93	1.97	1.00	10.85	20
Sweden	1.78	2.20	1.82	2.39	2.00	2.52	2.62	1.89	2.00	19.22	3
UK	2.12	2.45	2.57	2.82	2.60	2.76	2.63	2.55	3.00	23.49	1

To ensure reliability of the data, we looked also to the number of responses the AIMM score was based on. There were 5 countries with less than 20 responses causing anomalies: Luxembourg, Belgium, Italy, Denmark, and Netherlands. Therefore we excluded these countries from the statistics.

Macroeconomic Indicators

We chose three main macroeconomic indicators to examine their relationship with AIMM:

- GDP
- Unemployment rate
- The difference in wages between secondary and tertiary educated people

GDP: For comparison of academic integrity and GDP we chose GDP expressed in purchasing power standard (PPS) per capita, which is a dimensionless scalar value suitable for all EU member states comparison. The average value for EU is 100. Countries with higher value have GDP greater than average, countries with lower value have GDP lower than average. As the research was made in late 2013, the values of GDP are for year 2012 and were taken from Eurostat (Eurostat, 2013a).

Unemployment: The data about unemployment were also taken from Eurostat. “An unemployed person is defined by Eurostat, according to the guidelines of the International Labour Organization, as someone aged 15 to 74 without work during the reference week who is available to start work within the next two weeks and who has actively sought employment at some time during the last four weeks. The unemployment rate is the number of people unemployed as a percentage of the labour force.” (Eurostat 2013b).

Wage difference: As AIMM describes the maturity of integrity in higher education, one would suppose that countries with higher AIMM score have tertiary education giving higher added value and therefore higher education institution alumni will be much better paid than secondary education alumni. The more mature system, the bigger difference. For each EU country, we took the median of wages of secondary educated people, median of wages of tertiary educated people, counted the ratio and correlation of this ration with AIMM (see Table 2). The data was taken from Eurostat (Eurostat, 2014).

We used Pearson’s correlation coefficient for the indicator dependency evaluation.

The most of the survey was conducted in 2012 and 2013. This fact has two consequences: (1) Croatia as a new EU member state is not included. The IPPHEAE research was done only in 27 EU member states. (2) We count with GDP and unemployment rate values regarding to the year 2012. However, the relative GDP values, we count with, change slowly and do not bring severe inaccuracies. CPI values are for 2013, because Transparency International publishes the data during particular year.

Transparency International Corruption Perceptions Index

The Corruption Perceptions Index (CPI) unfortunately is not based on the real number of corruption occurrences, because is not possible to get this data. CPI merges data from more sources examining corruption in public sector. The data comes from reliable sources gained using reliable methods. The CPI values are standardized to scale 0–100 (Transparency International, 2013b).

There have been several disputes about the reliability of CPI values and about what it exactly measures. Donchev and Ujhelyi (2014) argue that CPI is biased downward from

Table 2

Wage differences, unemployment rate, CPI and AIMM

	AIMM	GPD in PPS (2012)	Unemployment rate 2012 [%]	Median of wages of secondary educated [€]	Median of wages of tertiary educated [€]	Ratio of wages of secondary and tertiary educated	CPI (2013)
Austria	19.79	130	4.30	23517	27786	18%	69
Bulgaria	9.91	47	12.30	3150	4271	36%	41
Cyprus	16.63	92	11.90	16938	23568	39%	63
Czech rep.	15.13	81	7.00	8100	10873	34%	48
Estonia	13.81	71	10.20	5969	8832	48%	68
Finland	15.74	115	7.70	22269	29373	32%	89
France	10.69	109	10.20	20146	26349	31%	71
Germany	12.33	123	5.50	19962	25601	28%	78
Greece	13.79	75	24.30	8799	13234	50%	40
Hungary	11.38	67	10.90	4868	6837	40%	54
Ireland	18.94	129	14.70	19516	27811	43%	72
Lithuania	13.53	72	13.30	4291	6790	58%	57
Latvia	12.56	64	14.90	4471	7052	58%	53
Malta	18.85	86	6.40	13565	18143	34%	56
Poland	12.98	67	10.10	4956	7798	57%	60
Portugal	12.79	76	15.90	9865	15034	52%	62
Romania	11.13	50	7.00	2303	3973	73%	43
Slovakia	17.39	76	14.00	7189	9041	26%	47
Slovenia	14.53	84	8.90	12035	16644	38%	57
Spain	10.85	96	25.00	12571	17874	42%	59
Sweden	19.22	126	8.00	26049	28834	11%	89
UK	23.49	106	7.90	19038	26547	39%	76
Correlation with AIMM	1.00	0.57	-0.33	-	-	-0.45	0.44

the real corruption experience. Corruption perception measure more absolute number of corruption cases than relative (to the population of particular country) one, which penalizes large countries. However, it is a publicly well-known indicator therefore we decided to use it for comparison with AIMM.

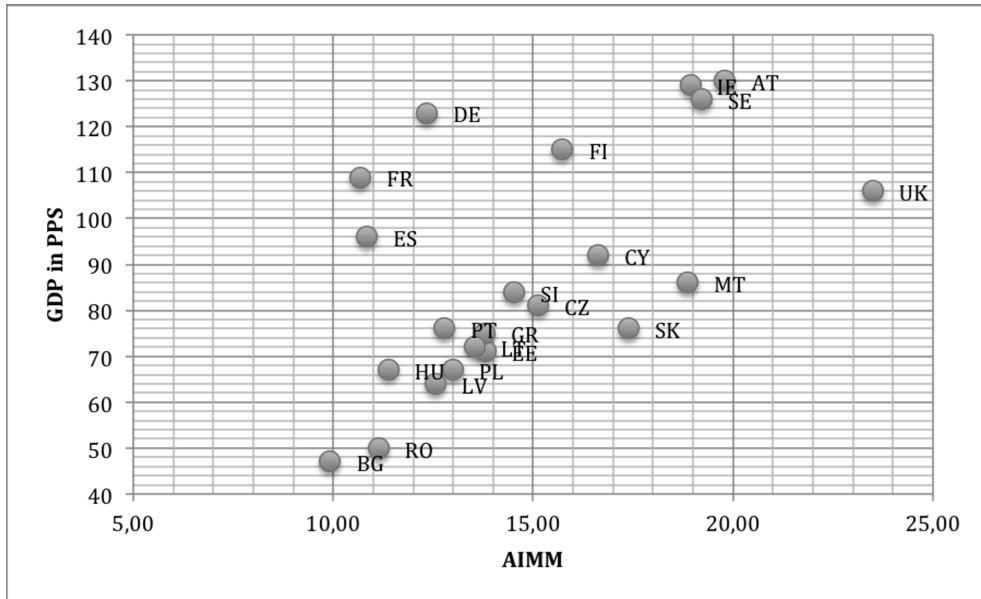


Figure 2. AIMM to GDP

Results

AIMM to GDP

The correlation coefficient between GDP and AIMM is 0.57 (see Table 2), which means moderate correlation. This result supports statements mentioned in the literature review. The trust and honesty of individuals is crucial for economic subject cooperation and supports economical growth. The correlation is visualized in Figure 2.

Next, we examined correlation between GDP and particular AIMM components (see Table 3). The highest correlation is with Software (0.55) and Research (0.53). This is understandable, because research is a very important part of each economy. Thanks to research, each economic subject (and eventually whole economic) can achieve better results without increasing costs of production. Transferred to academia, research in academic integrity ensures more efficient solving of AI issues and therefore more resources can be devoted to pedagogical activities, which improves quality. Software tools come usually from research and therefore these criteria are related.

On the other hand, the categories with lowest correlation coefficient were Sanctions (0.03) and Policies (0.16), which means no correlation.

AIMM to unemployment

The values of unemployment rates can be seen in Table 2. The correlation between AIMM scores and unemployment rate is -0.33 , which means weak negative correlation (see Figure 3). As the unemployment is generally considered as unwanted, negative

Table 3

Correlation of particular AIMM components with examined indicators

	Transparency	Policies	Sanctions	Software	Prevention	Communication	Knowledge	Training	Research	AIMM (total)
Correlation with GDP	0.33	0.16	0.03	0.55	0.48	0.48	0.46	0.51	0.53	0.57
Correlation with unemployment rate	-0.38	-0.14	-0.06	-0.39	-0.51	-0.25	0.01	0.08	-0.27	-0.33
Correlation with wage difference	-0.26	-0.13	-0.01	-0.60	-0.38	-0.38	-0.34	-0.30	-0.40	-0.45
Correlation with CPI	0.31	0.12	-0.01	0.46	0.47	0.41	0.28	0.22	0.41	0.44

correlation is consistent with expectations. The higher is the academic integrity maturity, the lower unemployment. However, unemployment is related to GDP, so this relationship is likely to be secondary.

Looking at particular AIMM components, the highest (meant in absolute value) correlation is with Prevention (-0.51) and Software (-0.39). The lowest correlation is with Knowledge (0.01) and Training (-0.08).

AIMM to wage difference

We calculated also a correlation between AIMM scores and percentage differences between wages of secondary and tertiary educated employees. As shown in Table 2 and in Figure 4, there is moderate negative correlation (-0.45). Therefore, countries with higher AIMM scores surprisingly have lower added value of tertiary education. We will discuss this surprising finding later. Looking at particular AIMM components, the highest correlation is with Software (-0.60) and Research (-0.40). The lowest correlation is with Sanctions (0.01) and Policies (0.13).

AIMM to CPI

The score of AIMM is calculated mainly based on questionnaires, i.e. subjective perception of respondents. Most of the countries do not maintain statistics about real numbers of plagiarism and academic integrity breaches, so hard data are not available. Similarly, CPI (Corruption Perception Index by Transparency International) is counted for a particular country on the basis of respondents' perception of situation. Thanks to similar method, the results can be comparable.

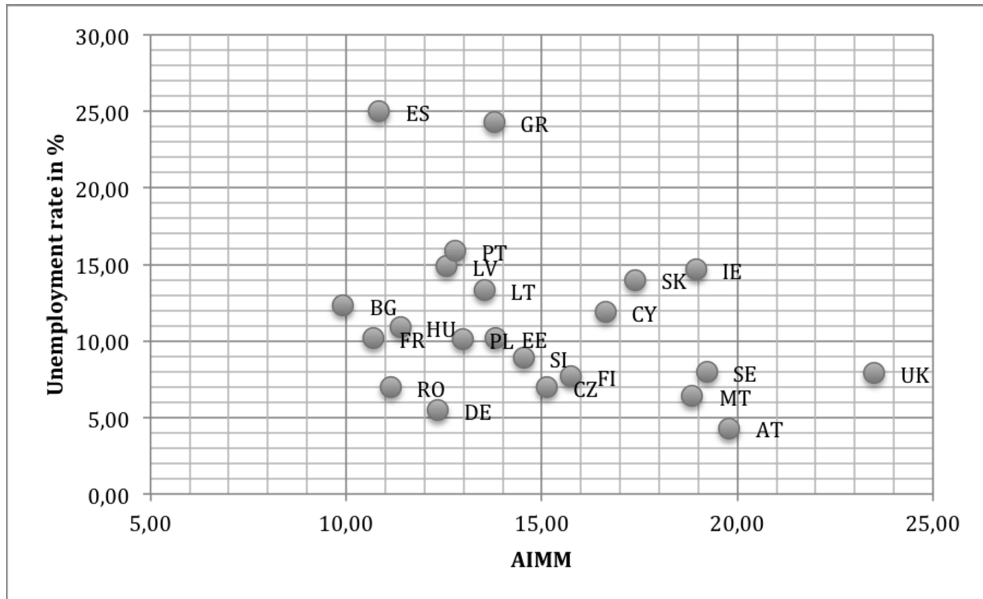


Figure 3. AIMM to unemployment

The values of CPI are shown in Table 2. The data was gained from (Transparency International, 2013a). There is a moderate correlation of overall AIMM scores and CPI (0.44), see Figure 5. Looking at particular AIMM criteria, the highest correlation is with Prevention (0.47) and Software (0.46). No correlation was found between CPI and Sanctions (-0.01) and Policies (0.12)

Discussion

The negative correlation between AIMM and unemployment can be explained as follows: If there is high long-term unemployment rate in particular country, people tend to be less satisfied with their lives, crime increases and people give up an honest way of life and tend to dishonesty including academic integrity breaches.

Let us try to explain the negative correlation between AIMM and wage difference. What is better for the society? Lower, or higher difference? In case of high difference people will be more motivated for their studies and the number of tertiary education alumni will increase. This corresponds to actual trend of teaching more and more people at HEIs with the same resources. There is no doubt about the contribution of educated people for society; however, there are not so many positions for such educated people. Therefore tertiary education alumni work in positions where secondary education would suffice. This significantly decreases the difference in wages.

As shown in Table 2, the wage difference is in negative correlation with GDP (-0.57). Economically more developed countries have lower wage difference. This fact could

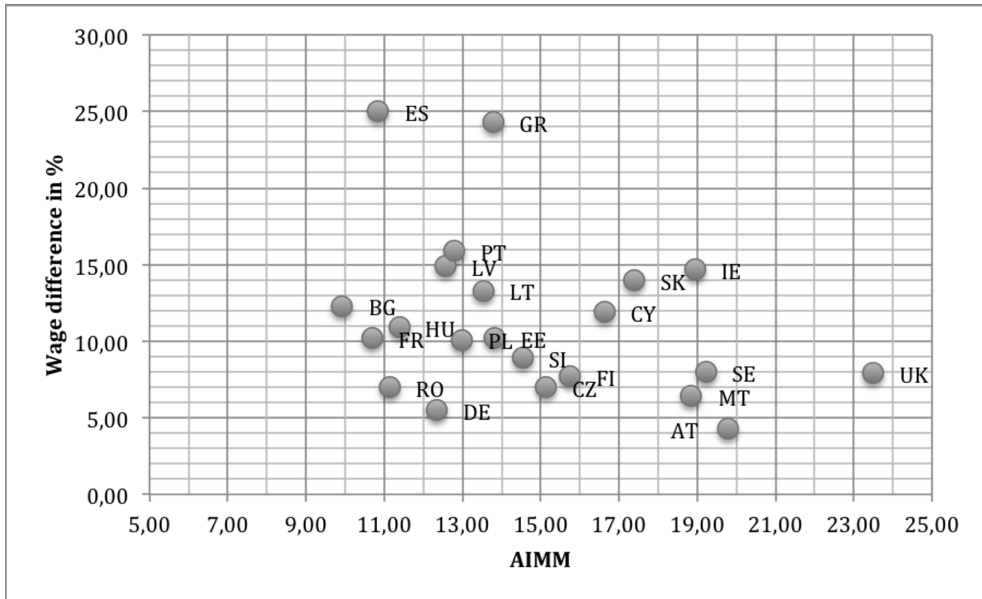


Figure 4. AIMM to wage difference

be explained by better education system producing more educated people without appropriate job vacancies for higher education alumni.

The most probable explanation, why countries with high difference achieve low academic integrity maturity, is the fact, that number of tertiary education alumni in these countries is low and insufficient supply of tertiary educated labour force increases its price.

The correlation between AIMM and CPI supports the conclusions of Innes and Mitra (2013) that honesty is contagious. Also, Harding's (Harding et al, 2004) findings are confirmed by existence of this correlation. Students bear their honesty to their later employment. This finding also supports Grimes' (2004) study.

Research also showed the relationship between the level of plagiarism prevention of particular countries and corruption level. Countries with low corruption level are aware that it is necessary to lead their citizens to honesty during their studies. It is the cheapest and simplest way. Moreover, richer countries can afford to invest more in research and development and are more likely to be able to fund initiatives for improving academic integrity.

Conclusion

The research in this paper was based on the values of AIMM. We showed that AIMM scores are in correlation with CPI proving that honesty is contagious and that academic integrity is related to business ethics. We also showed that academic integrity is in

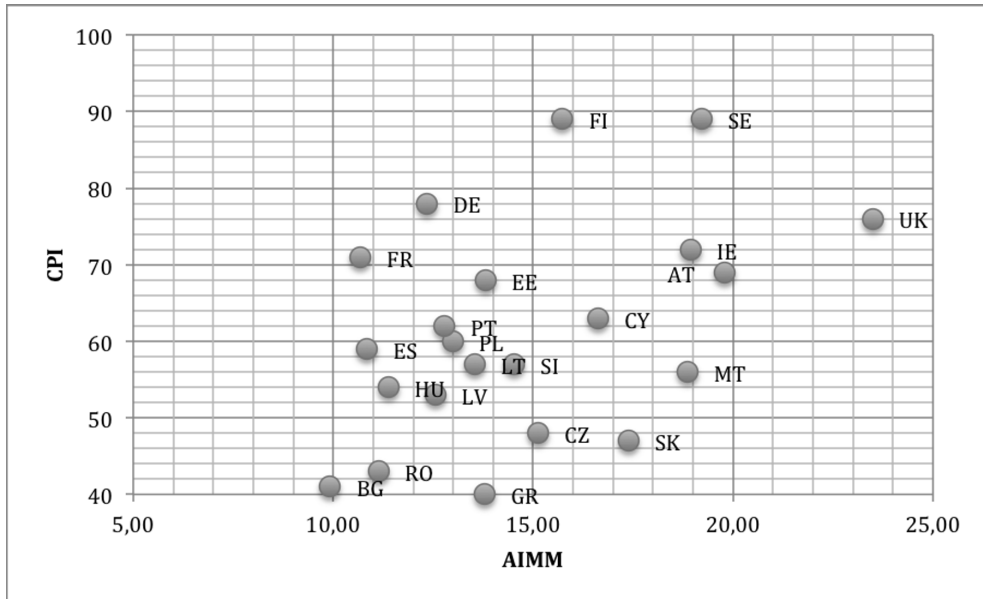


Figure 5. AIMM to CPI

positive correlation with GDP and with negative correlation to unemployment and wage difference between secondary and tertiary educated people.

We found the relation between AIMM and GDP as the most important one. We are aware that correlation does not mean causality. The causality in overall country indicators is often both-directional. The richer country is, the more money goes to education system. Therefore higher education institutions can afford software tools, integrity officers and other bodies promoting and enforcing academic integrity at particular institutions. On the other hand, building the integrity structures, raising awareness about integrity issues and rising students' integrity level makes business more ethically mature causing more trust, promoting trade and increasing GDP. Promoting academic integrity directly or indirectly tends to impact positively on national economies.

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DIFFERENCES IN LOCAL RESPONSES TO PLAGIARISM IN FINNISH HIGHER EDUCATION

Erja Moore

Abstract:

Student cheating and student plagiarism are issues that have not raised national discussion in Finland. There are no statistics and no nation-wide research on the extent of cheating and plagiarism in higher education. The survey conducted in Finland within the IPPHEAE-project (Glendinning, 2013a) showed that the majority of teachers disagreed with the statement that similar cases of plagiarism lead to similar consequences.

This paper presents the implementation of plagiarism policies in Finnish universities. Web-pages describing plagiarism policies in all higher education institutions ($n = 39$) were analysed in order to develop a picture of the Finnish universities' policy and procedure dealing with the issue of plagiarism. Secondly, thematic content analysis was conducted on administrative procedures and decisions taken with regard to four different cases of plagiarism in theses, which were dealt with in different universities during 2012–2014.

This paper shows that explicit and implicit rules were used in decision making regarding plagiarism, and that the approaches taken by the higher education community differed. The administrative decisions and processes in case of suspected plagiarism differed in different universities and social contexts despite national recommendations and laws. The decisions taken also demonstrated the power relations between the actors (students, teachers and administrators) within a university and between two powerful social institutions – higher education and law.

Key words: plagiarism; plagiarism policy; Finnish higher education

1 Introduction

Plagiarism in higher education has raised a lot of discussion and research internationally. Plagiarism is seen as threat to the quality of the higher education institution to guarantee the high quality of learning outcomes and research, and plagiarism prevention policies have been developed on national and institutional levels. Plagiarism is one of the difficult issues that every higher education institution faces, and to deal with it the institution needs good practices and consensus (Sutherland-Smith, 2014, p. 40).

However, in Finland the situation seems to differ from that in many other countries that have put a lot of effort in research and development of plagiarism prevention. Plagiarism in studying and research are issues that still have not raised national discussion in Finland. There are no statistics and no nation-wide research on how common plagiarism in education is, and neither is there any knowledge about other forms of cheating. In a rare study about students' writing practices, the accuracy of referencing in electronically published theses in Finland was analysed, and it was evident that plagiarism is accepted in polytechnics as clear plagiarism was found in many theses that had been accepted and published in 2012 (Moore, 2014).

In Finland, there is a dual system of higher education consisting of 14 (research) universities and 25 universities of applied sciences (polytechnics) (Ministry of Education and Culture, 2015). Both sectors can award Bachelor's and Master's degrees, but

doctoral degrees are only awarded by research universities. In 2013, there were 167000 students in universities and 140000 students in polytechnics. In 2013, the universities granted a total of 30300 degrees and polytechnics 25000 degrees (Statistics Finland, 2015.) Universities and polytechnics enjoy public funding for the autonomy in their functions, and studying is free of charge for the students.

Legislation on universities and polytechnics states that every degree taken in a higher education institution must include a thesis. In universities, the Bachelor's thesis is allocated 6–10 study points and the Master's thesis 30–40 study points (Government decree on university degrees, 2004). The legislation on polytechnics states that in every degree there has to be a thesis, but it does not specify the size of the thesis. (Government decree on polytechnics, 2003.) Most common practice is that a Bachelor's thesis is 15 study points and a Master's thesis 30 study points. Many higher education institutions have started to publish students' theses electronically. Polytechnics have their own publication forum Theseus (Theseus, 2015). Universities publish some theses on their faculties' web-pages.

2 Plagiarism prevention and quality assurance in higher education

Electronic plagiarism detection systems are widely used in higher education in order to ensure the main purpose of education: learning. To earn a degree, the student is required to learn the subjects that have been included in the programme curriculum. Assessment of learning is one of the main tasks of university teachers. This is mainly through essays and finally in a thesis, and instead of evaluation of exams the teachers read and evaluate and give feedback on student writing. When it comes to writing, however, the availability of electronic publications has made copying and paraphrasing existing texts so easy that some students take the chance and copy such material when preparing their assignments.

The use of plagiarism detection can be seen as part of universities' quality assurance in their pursuit to provide high quality learning results. Sutherland-Smith (2014, p. 29) states that "*in universities around the world, plagiarism management is an ongoing issue of quality assurance and risk management*". She introduces three national contexts of plagiarism management, United Kingdom, Australia and Sweden, and finds competing discourses in plagiarism management. Plagiarism management can follow the discourse of legality, discourse of teaching academic writing or it can be a discourse of quality assurance. (Sutherland-Smith, 2014). In plagiarism research, two approaches towards handling plagiarism are often identified: (the student-friendly) preventive model approach and the punitive model approach focusing on sanctions. In the preventive model of plagiarism policy students learn about academic integrity, ethics and writing. The main focus is on the first year of studies, and electronic plagiarism detection is used in the phase of learning academic writing and referencing. The punitive model is seen to just to concentrate on sanctions, and teachers can be seen as "police officers". (cf. e.g. Sutherland-Smith, 2014; Walker & White, 2014.)

In Finland, until 2014, The Finnish Higher Education Evaluation Council (FINHEEC) was responsible for monitoring and assuring quality in higher education. The institu-

tions' quality assurance systems were audited (and some institutions re-audited) in 2005–2014. The audit manual highlighted the self-evaluation report prepared by the institution. The word plagiarism was not mentioned in the audit manual (FINHEEC, 2011) and it is not mentioned in any of the institutional audit reports (FINHEEC, 2015)¹. In 2014, a new council, Finnish Education Evaluation Centre, took over the task of evaluation of education at all levels. In national higher education discourse, the quality assurance of higher education has been placed on the institutions themselves. The audits of quality assurance include a self evaluation report, which is provided by the institution, and audit visits where the evaluators meet staff chosen by the institution. In the new Audit Manual by Finnish Education Evaluation Centre (2015) plagiarism or plagiarism detection are still not mentioned.

Universities report their results to the Ministry of Education and Culture and data about quantitative measures (e.g. number of degrees, number of study credits) are collected. However, no qualitative data about the learning or assessment of the level of learning and knowledge of students is reported. With regard to issues of plagiarism in higher education, quality evaluation data is completely missing in Finland. Performing audits of quality assurance systems that rely only on self evaluation and on quantitative data, and the lack of (external) evaluation on teaching and learning practices and outcomes, have led the education system to a situation that there is no evidence of the quality of learning and qualifications provided by current higher education institutions. As Sutherland-Smith (2014, p. 36) has put it: *"It is likely that a university will construct a position during the audit phase that does not necessarily reflect its true working situation"*. Furthermore, aspects of ethical issues on quality are missing and not discussed (Finnish Education Evaluation Council, 2015), even though all higher education institutions have agreed to follow national guidelines of good scientific practice and procedure for handling allegations of misconduct (Finnish Advisory Board on Research Integrity, 2012). In the guidelines plagiarism is defined as *"unacknowledged borrowing"*, *"representing another person's material as one's own without appropriate references."* The definition also specifies that *"plagiarism includes direct copying as well as adapted copying"* (p. 32).

The survey conducted in Finland within the IPPHEAE-project (Glendinning, 2013a) showed that the majority of teachers disagreed with the statement that similar cases of plagiarism lead to similar consequences. There was no consensus about what constitutes plagiarism. If plagiarism is found or suspected in student's work *"there is no consistent response within or between institutions"* (Glendinning, 2013a, p. 14). The only Finnish study evaluating student's writing and referencing skills gave an unexpected result: even without the use of electronic plagiarism detection system, 12 percent of the theses ($n = 91$) published in Theseus contained plagiarised material, and further 13 percent of theses contained sloppy and misleading referencing. (Moore, 2014.)

¹There is one exception. In an audit report published in 2014 plagiarism is mentioned twice in one sentence. The wording is vague, though, and refers to research and international students: *"TTY has taken into use a database application to detect plagiarism and as in the thematic interview on quality assurance of international affairs it was pointed out also cultural differences are taken into account in the information about plagiarism in research in TTY."* (Mäki et al., 2014, p. 43)

Although a plagiarism detection system was acquired by some Finnish polytechnics in 2009, data on the extent of plagiarism were not produced (Moore 2010). In 2012, however, an appeal to survey the procurement and use of electronic plagiarism detection systems was responded to by the Ministry of Education and Culture, and the issue was delegated to a project (Raketti) that had been appointed in 2007 to develop “a current, encompassing and reliable and also automatically updated data base” for management of higher education institutions and for the use of the whole university level system (Raketti, 2015). The steering group of the Raketti-project stated in their memorandum in June 2012 that “the assurance of high quality of research ethics in theses is a central issue in credibility of higher education; this quality question, however, has not one clear owner in Finland” (Tuhkanen, 2014a, p. 8). This sentence is the only national level statement about plagiarism with reference to quality in higher education that was to apply, however, only for theses and not as a means for education and learning. The task to clarify technology, division of labour and service infrastructure and networking of users and educators of plagiarism detection systems was appointed to one man who then organized four different teams with experts to compose a report on the subject (Tuhkanen, 2014a). As a conclusion about the use of plagiarism detection, Tuhkanen (2014b) has estimated that many universities have chosen to acquire a plagiarism detection system, but the level of use or plagiarism policy have not been defined.

3 Aim, method and presentation of cases

In order to address the implementation of plagiarism policies in Finnish universities it was first investigated how higher education institutions ensure that student work (essays, written assignments, theses) are plagiarism free. Data were first collected from universities’ web pages. Key words ‘plagiarism’ (‘plagiointi’ in Finnish, ‘plagiering’ in Swedish), ‘ethical’ (both singular and plural forms in Finnish and Swedish), ‘plagiarism detection’ (in Finnish and in Swedish, and also ‘Urkund’ and ‘Turnitin’) were used as key words to identify the presence of an ethical code for dealing with plagiarism and the use of plagiarism detection methods. It is to be noted that the institution’s own search function was used and only the internet open to everyone was analysed. These data were collected in January 2015. As an additional and supportive data on the same issue two documents produced in the Raketti-project were used (Raketti, 2013; San Miguel, 2013). These two documents present data collected in 2013 from higher education institutions on their plagiarism detection procedures. The analysis of the policy information is descriptive and informative.

Secondly, it was investigated how plagiarism policies are implemented locally in cases of suspected plagiarism in theses. The administrative procedures and decisions in dealing with plagiarism were analysed for three Master’s theses and one Licentiate thesis. Data were in the form of university’s administrative documents about the plagiarism detection process and the decisions taken (cases 1, 2 and 3), and the decision given by an Administrative Court (case 4). Since public institutions are subject to Publicity Law (Act on the Openness of Government Activities, 1999), the universities and Administrative Court sent the material on request. These are plagiarism cases that were known to have been dealt with through an administrative process in 2012–2014.

The analysis of the cases was deductive thematic content analysis in which the main actors and their position in the process and decision about plagiarism are described. The themes formed are: defining plagiarism, student views on suspected plagiarism, justification of decisions and processes, and disordered administrative decisions.

Presentation of cases

Case 1.

The student had presented a plagiarized text as his own to be evaluated as his Master's thesis (business) in 2012. The evaluation process was interrupted after the supervisor noticed similarity of text to another thesis in another university and made a formal announcement to the Dean according to the procedure of the university. The student was requested to submit his view in writing about the suspected plagiarism. The case was forwarded to the rector who requested an evaluation of the plagiarism case by two teachers and the student's response to their evaluation, and then the case was transferred to the **university board**. The student received a warning and was suspended from studies for six months. Plagiarism was considered as a violation of University Law, which was used as the grounds for the decision to suspend the student. Later, in 2013, the student graduated with a Master's Thesis on a completely new subject.

Case 2.

In 2012, a student complained about the evaluation of her Master's thesis (Health Sciences), which was disqualified (to be corrected) by the external evaluator due to incoherence, sloppy referencing and suspected plagiarism. The student appealed, demanded the thesis to be accepted and accused her former supervisor and the evaluator for unethical judgements. The former supervisor, following procedures, notified the rector in writing explaining that this was a case of suspected plagiarism. It was stated that the thesis contained large proportions of plagiarized text and thus it had been disqualified. The rector gave his decision after meeting the student and some members of staff. No text comparisons were used and no written statements were required from any of the parties. The **rector** did not address plagiarism. Shortly after the rector's decision the thesis was accepted as a Master's thesis.

Case 3.

A Licentiate thesis (Law studies) had been accepted in 2009. The university had been informed about suspected plagiarism one month after acceptance, and it took three years to come to a decision about the case. First, in 2009 the faculty council asked the two original evaluators and the student for written statements about the suspected plagiarism. The faculty then asked the rector to deal with the case, and the rector started the preliminary inquiry, which did not remove the suspicions of plagiarism and as a result an investigation team (two professors, researcher, lawyer) was appointed to do the investigation proper. The investigation team gave their written report and

the rector asked the faculty council to take the appropriate action for addressing plagiarism in the thesis. In two faculty council meetings in 2010, the thesis was dealt with as a case of plagiarism. The matter was seen as a factual error in administrative decision (both in accepting the thesis and granting the Licentiate degree). Due to *protection of law*, the **faculty council** decided to ask the supreme Administrative Court to cancel the administrative decisions that had been given in accepting the thesis and granting the Licentiate degree. The case was, however, never forwarded to Supreme Administrative Court. In 2012, the student had contacted the faculty and asked the removal of administrative decisions. Three years after the acceptance of the thesis and the degree both decisions were removed on grounds that the person in question had himself asked this to be done after noticing that his Licentiate thesis “*does not fulfil the requirements of scientific research*”. No sanctions were used and the student was given a new instructor to continue work with his thesis. Later, in 2014, the faculty council decided that the manuscript for licentiate thesis by the same student was disqualified.

Case 4.

A Master’s thesis (Science) was accepted and a Master’s degree granted in December 2011. In November 2012, the author of the thesis had sent an article co-authored by three other researchers to an international journal, which gave a formal warning to the university due to plagiarism in the article. The article was rejected. The rector asked, in December 2012, the ethical board of the university to investigate the student’s scientific work by all accounts. In March 2013, the ethical board stated that the student had committed misconduct in scientific research. In April 2013, the rector decided for a re-evaluation of the thesis and correction of factual error based on administrative law. The evaluators suggested the retraction of the thesis based among other issues on plagiarism. The **dean** rejected the thesis in May 2013 and retracted the Master’s degree. The student immediately complained to the Appeal Committee of the university, which transferred the appeal to Administrative Court. The **Administrative Court** gave a decision in October 2014 that the dean’s decisions to retract the thesis and the degree have to be cancelled and the student has a right to his degree based on the principle of *protection of confidence*. (Eastern Finland Administrative Court, 2014).

The thematic analysis of the four cases is presented in subchapters 4.2–4.4.

4 Results

4.1 Plagiarism policies in Finnish higher education

Analysis of the policies advertised in the webpages of the universities showed that in general, ethical issues are more accessible and public in the web pages of universities than of polytechnics. Some higher education institutions, mainly polytechnics, have no coverage of ethical issues or any ethical guidelines available in the internet (Table 1). Since institutions may only publish guidelines in their intranet it was not possible to assess the kind of information available to students.

Issues of plagiarism are covered in all but one university, but in almost half of the polytechnics ($n = 12$) the term ‘plagiarism’ (in Finnish ‘plagiointi’, in Swedish

Table 1

Search results for plagiarism policy on universities' web pages (n = number of institutions, range= range of term hits on institution's webpages)

	Term plagiarism mentioned n /total (range)	Electronic plagiarism detection used in theses n /total	Ethical issues of education and/or research covered n /total (range)
Universities (n = 14)	13/14 (1-577)	13/14	13/14 (less than ten hits in 2 universities, range 4-1940)
Polytechnics (n = 25)	13/25 (1-5)	10/25	18/25 (zero hits in 7/25, 1-9 hits in 8/25, range 1-768)

'plagiering') was not found in the search and it was not mentioned on any pages or documents available on webpages. The searches about publicising ethical issues about studying and research showed a similar pattern. While almost all universities (n = 13) covered ethical issues on their webpages there were seven polytechnics that had nothing on ethics or ethical issues available on their webpages.

Use of electronic plagiarism detection systems started in 2010 by three universities. The remaining universities have slowly started to report such acquisitions. The polytechnics acquired a plagiarism detection system in 2009 as a consortium (Tuhkanen, 2014a, p. 18). However, by 2015, only 10 out of 25 polytechnics are publicising the use of the system. This result is similar to that reported by San Miguel (2013) that plagiarism detection is used systematically only in a small proportion of polytechnics for thesis assessment.

All higher education institutions are committed to follow the ethical guidelines of Finnish Advisory Board of Research Integrity (2012), but this information is not available on the webpages of all institutions. Only one university has named plagiarism prevention on title level in a document aimed to guide students in writing (*'Skilful writing and plagiarism prevention'*). No other university had any such named policies. Plagiarism was mentioned within degree regulations and in guidelines concerning writing and thesis. In all instructions concerning plagiarism detection it was stated that detection is to be used in checking the theses. There was no evidence of instruction for the use of plagiarism detection in the first (or second, or third) year of studies as part of the evaluation of written assignments.

4.2 Procedures in defining plagiarism

In the plagiarism cases (presented in section 3), all suspicions had been raised by a whistle-blower who was the instructor or a journal editor. In one case the whistle-blower's position is unknown. In three cases the whistle-blower was not involved in the process of defining plagiarism. In the three cases in which plagiarism was addressed, text comparisons were used and the student's text was compared to the originals that the whistle-blower had named. In the documentary data of these four plagiarism cases, there is no mention about the use of electronic plagiarism detection before or after the suspicion arose.

The following two extracts from the investigative team's final report show the type of plagiarism the team had identified: *"There are about 40 pages that are identical to another thesis. There are no references to this other thesis and it is not mentioned in the sources. Also appendices 1 and 2 are identical."* *"Even the typing errors in N.N.'s text are identical, which indicate the use of cut and paste technique. There are ten identical references in the two theses, and in two of the internet sources N.N. has given the same date as the date the source was retracted."* Based on this comparison, the team states that the student had committed misconduct in form of plagiarism in his thesis.

The notification from the journal about plagiarism in the manuscript (case 4) stated that text, figures and plasmonic nanoconstruct are copied from a previously published article. The investigation team requested to examine the author's thesis stated that *"similarities in the Master's thesis and a previously published article are too extensive in order that this could be a case of coincidence"*. The investigation team defined N.N. to have committed research misconduct in form of plagiarism, fabrication and misleading the scientific community.

Defining and addressing plagiarism can also lead to contradicting processes and conclusions. The university board's conclusion in case 1 was based on the report of the evaluators *"N.N.'s thesis is centrally plagiarised and he has presented it to be evaluated as his own Master's thesis. (. . .) Plagiarism has been performed by making systematically mainly technical changes in the sentence structures of the plagiarised text, the aim of which has been to make it more difficult to notice plagiarism in the evaluation process. The university board also ponder the seriousness of the deed: "Contrary to the view presented by N.N. in his written reply this deed can even be seen as more severe as word-to-word plagiarism."*

However, in another university the rector takes a completely opposite view to similar kind of plagiarism. In the notification, the student's research plan was compared to another previously published thesis and a company's product manual, and five pages of the plan were considered to be copied or modified from the existing two publications. In addition, the research plan had been copied with a "save as a copy" function from another student's thesis plan which was evident in the features of the Word document. In the notification, 17 paragraphs of the thesis were given as examples of plagiarism of text copied from seven publications. In text citations were identical and references were identical with original authors' referencing styles. In his official response to the written notification the rector explains why this is not a case of plagiarism: *"It surely is true, that N.N.'s thesis has been disqualified for a reason. It has borrowed text, sloppy referencing, inadequate language. This is due to the hurry caused by student's life situation or due to other reasons a careless and quickly produced manuscript (. . .) In spite of the weaknesses of the thesis, I don't hesitate to state that in this case plagiarism accusations play only a side script and this is clearly a case of twisted exercise of power, or at least an effort of that, in which a hurt teacher aims with help of an accusation of fraud to prevent or at least seriously complicate the graduation of the student."* The rector's perception of what constitutes plagiarism is not evident in his decision.

4.3 *Student views on suspected plagiarism*

In all cases the students deny that they have committed plagiarism. The reasoning behind the denial varies. In one written statement the student wrote to be sorry for the trouble, but as he had so far studied successfully, he presented mitigating circumstances. He admits that he had used the other thesis as a base for his work, but that *“in no phase my purpose was to cite or copy the thesis in question.”* He claims to have done this completely unintentionally. Also claims as an explanation to his view that *“in no sentence the word order is the same as in the original”*.

The student who had copied 40 pages from a thesis published earlier states that the reason he did not mention this author in his references was based on *“a writing that I found in the Internet, in which it was recommended that theses that are on the level of polytechnic are not recommended to be used in comparisons or as sources in a Licentiate level thesis.”* He also denies intent to deceive. *“Intent was completely missing from my deed with regard to that mistake.”* *“This mistake was, as seen afterwards, based on lack of knowledge.”* In case 4, in which the retraction of the degree was taken to Administrative Court the student appeals as follows: *“I wrote my Master’s thesis in good faith sincerely. I was not acting intentionally but it has been a case of misapprehension with respect to references and referencing.”*

Lack of intention to deceive is mentioned in all student views. In the IPPHEAE Report, Comparison of policies for Academic Integrity in Higher Education across the European Union (Glendinning 2013b, p. 38), it is stated that in many countries, including Finland, *“plagiarism requires “intent to deceive” before any case could be brought”*. However, this kind of statement cannot be found in any written guidelines, but it seems to be a very strong cultural belief about how to explain plagiarism. In the guidelines provided by Finnish Advisory Board on Research Integrity (2012, p. 32) it is stated: *“Violations of the responsible conduct of research consist of actions that may have been committed either intentionally or through negligence.* Thus, the fluent use of the expression “lack of intent to deceive” in student responses forms an interesting aspect to student learning. Even if there is no common understanding of what plagiarism is or why plagiarism is not accepted students have learned what to say if they face plagiarism suspicions. As students in their views evidence they are aware of this cultural belief that plagiarism is a violation only if it is intentional, and almost like speaking with one voice students use the expression “lack of intent” as a reason to deny the deed of plagiarism.

4.4 *Justification of plagiarism detection processes and disordered administrative verdicts*

In the guidelines provided by Finnish Advisory Board of Research Integrity (2012) the responsibility on decisions about misconduct lies on the rector of the university, who conducts the preliminary inquiry and appoints the investigation committee. The membership of such a committee was named in three of the cases. In all cases, however, several additional people were involved in defining plagiarism.

In only one of the cases (case 1), the procedures dealing with plagiarism followed fully the guidelines provided by Finnish Advisory Board on Research Integrity (2012).

The suspicion rose before approval of the thesis and the matter was investigated accordingly. The suspension for half a year proposed as punishment was defined within the University Law. The options for sanctions included in the University Law (2009) range from a written warning to a suspension for a year. For the other three cases, two were suspected for plagiarism after thesis approval and one was approved and published even if there was evidence for plagiarism. In one case the rector did not identify plagiarism and thus encouraged the publication of the thesis.

Cases where the university is informed about suspected plagiarism in thesis after graduation are complicated because there is no established procedure for a retraction of thesis (Moore, 2013). As shown in case 3, the slow reaction of the university to bring the case to Supreme Administrative Court gave time for the retraction of the degree without any sanctions. The decision of Administrative Court in a similar case (case 4) led the court to abrogate the university's decision of the retraction and the degree to be reinstated based on the reasoning that since the thesis has been accepted to begin with, the student has to be able to trust the institution and retain the degree based on the principle of *protection of confidence* – even if it could be seen as a fake degree since the learning objectives of a Master's thesis are not accomplished.

5 Conclusion

Plagiarism prevention policy in higher education has been connected with quality assurance and quality of education in general (e.g. Sutherland-Smith, 2014). In Finland, this is not the case. Issues of plagiarism and plagiarism policy have been invisible in the national steering of higher education, and plagiarism policies are not mentioned at all in the context of higher education quality assurance. The data and analysis of policies that are available on the web pages of Finnish universities regarding plagiarism indicate that higher education institutions differ greatly in the openness of dealing with it. The universities have much wider implementation of plagiarism policies than polytechnics, and universities clearly are more open to the public in dealing with plagiarism. Most polytechnics do not publish anything on their webpages concerning plagiarism or ethical issues in general.

Electronic plagiarism detection has been taken up by some universities in Finland in order to detect plagiarism in theses. There are no data available of how systematic their use is, and there are no data about their use in the earlier years of undergraduate studies. This kind of technology driven plagiarism policy focuses on detection, not prevention, and thus we might be in a situation that Sutherland-Smith (2014, p. 40) has warned about: *“simplistic band-aid solution is unlikely to have any sustainable effect”*. Reported discussions about the effectiveness and usefulness of electronic plagiarism detection software cannot be found in Finnish higher education. Based on many years of evaluating the usefulness of such software, Weber-Wulff (2014, p. 70) has concluded that plagiarism detection software is not very useful at all. According to Weber-Wulff (2013), *“plagiarism detection software should not be used generally, but only when something is suspected”*. She also reminds us that the results must be critically evaluated, a detection program can indicate the presence of plagiarism, but it cannot prove absence of plagiarism.

The cases, the processes and actions taken on reported plagiarism are examples of the differences in dealing with plagiarism between Finnish universities. The number of cases for 2012–2014 is small. This may indicate that plagiarism is only dealt with when there is outside pressure, or that plagiarism cases may be silenced within universities because teachers and management may understand plagiarism differently within an organisation (Moore 2008). On the other hand, this could be a phenomenon well known in plagiarism research, that of the problematic nature of dealing with plagiarism suspicions and the vulnerable position of whistle-blowers (e.g. Martin, 1994; Martin, 2013). With plagiarism suspicions there is a tendency both to cover up and end the discussion (Mallon, 2001, p. 152), and in this manner the institution aims to maintain its reputation.

However, from a quality assurance perspective higher education is transparent only if students are in fact expected to learn, avoid plagiarism and follow general ethical rules in learning (Moore 2010). Since in some Finnish institutions plagiarized text is accepted (Moore 2014) the learning goals set for the student are not reached. The analysis of the cases showed that a lot of time and resources may be required to deal with plagiarism if the thesis has been approved and the student graduated. This could have been avoided if the thesis had been screened for plagiarism beforehand. More so since a student has the right to appeal to the Administrative Court and maintain the degree based on *protection of confidence*. The Finnish legislation here is in sharp contrast to that for example in Germany, where numerous PhD degrees have been retracted based on plagiarism addressed afterwards (Weber-Wulff 2013; 2014).

The lack of plagiarism policy, procedures and a consensus on what plagiarism is may prevent universities from taking the appropriate actions in the cases of plagiarism or when suspicion is raised. Students, on the other hand, however, do not hesitate to plea for “lack of intent” to plagiarise when they do so. Plagiarism is one of the issues that have been almost completely silenced, and thus there will be a huge workload for future quality evaluators to assess the level of learning and qualifications that are acquired in the current learning programmes in Finnish higher education.

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SK ANTIPLAG IS BEARING FRUIT

Julius Kravjar

Abstract: Slovakia made a unique and significant step forward in the fight against plagiarism at higher education institutions in April 2010. At this time, the SK ANTIPLAG system (a central repository of theses and dissertations, a plagiarism detection system, a comparative corpus, local repositories of theses and dissertations) started routine operation after a preparatory phase. Pursuant to the amendment to the Higher Education Act from October 2009, the use of SK ANTIPLAG (including uniform collection methodology of theses and metadata) is mandatory for all Slovak higher education institutions operating under the Slovak legal order. It is an unparalleled and unprecedented implementation of such a system on a national level. A relevant milestone has been built not only on the Slovak scale, but also worldwide.

1 Introduction

1.1 *The History*

In 2001, the only private HEI in Slovakia used a plagiarism detection system (PDS). Later, in 2009, two public HEIs started to use a PDS, too. The nationwide implementation of SK ANTIPLAG in 2010 was really a breakthrough, a big step forward. At that time, the unanswered question was the readiness of HEIs to use the SK ANTIPLAG system. The readiness situation is illustrated in Table 1 and in Figure 2. In May 2010, 78.8% of HEIs (26 out of 33) were already using SK ANTIPLAG.

All state HEIs were ready in May 2010, all public HEIs were ready in September 2010 and all private HEIs were ready in March 2011.

In 2011, two private HEIs were established and, in 2012, one more private HEI was established. The new HEIs started to use SK ANTIPLAG at the moment when their students handed over their theses and dissertations to the local repositories (May and June 2014). Nowadays, all Slovak higher education institutions (36) use SK ANTIPLAG routinely. There are four more HEIs in Slovakia, but they do not operate under the Slovak legal order.

The basic motivation that led to the birth of SK ANTIPLAG as a nationwide plagiarism barrier at HEIs was the uncontrolled proliferation of plagiarism that has been facilitated on one hand by technological progress (personal computer and Internet penetration) and, on the other hand, by the situation in higher education characterised by enormous growth in the number of students, HEIs and disproportionate growth of teachers (Figure 2). Accompanying factors were low awareness of academic integrity, ethics, intellectual property rights and plagiarism.

The first official joint effort against plagiarism at HEIs was recorded in September 2006. The Slovak Rector's Conference (SRC) approved two documents related to academic ethics. The first one "Measures to Reduce Ethical Violations of Standards for Preparation and Presentation of the Bachelor's, Master's and Dissertation Theses"¹

¹In original: Opatrenia na odstránenie plagiátorstva pri spracovaní a prezentovaní bakalárskych, diplomových a dizertačných písomných prác

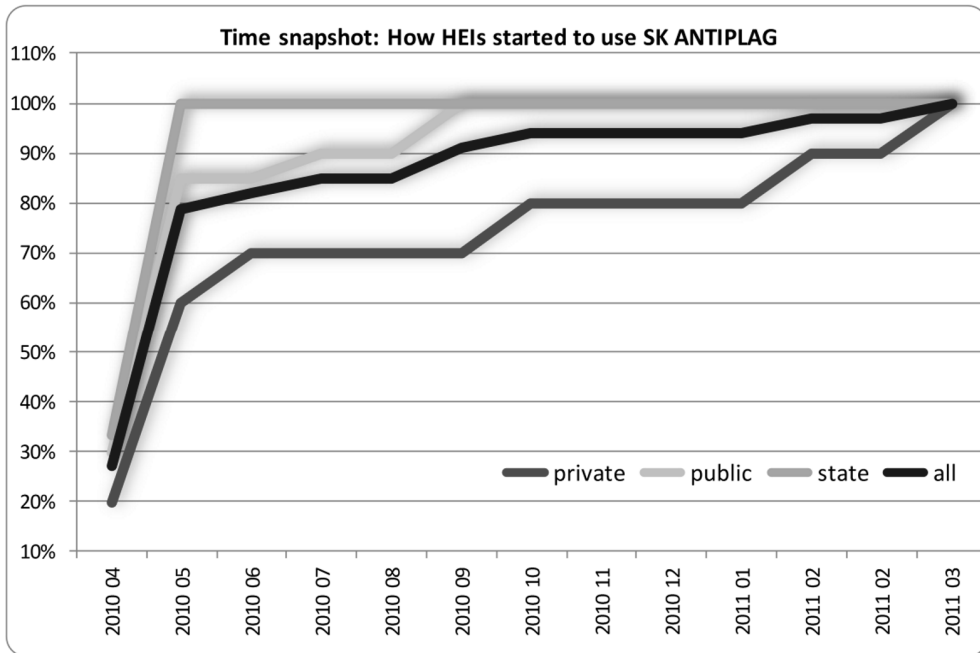


Figure 1. Readiness of HEIs to use SK ANTIPLAG

Table 1

The history of PDS and readiness of HEIs to use SK ANTIPLAG

Implement- ation	Year	Number of higher education institutions							
		cumul- ative	percent- age	public HEIs		state HEIs		private HEIs	
				cumul- ative	percent- age	cumul- ative	percent- age	cumul- ative	percent- age
Individual systems	2001	1	3.0%	0	0.0%	0	0.0%	1	10%
	2009	3	9.1%	2	10.0%	0	0.0%	1	10%
SK ANTIPLAG	May 2010	26	78.8%	17	85.0%	3	100.0%	6	60%
	Sep 2010	30	90.9%	20	100.0%	3	100.0%	7	70%
	Mar 2011	33	100.0%	20	100.0%	3	100.0%	10	100%
	Jun 2014	36	100.0%	20	100.0%	3	100.0%	13	100%

was addressed to students and the second one “Code of Ethics for Higher Education Institutions Employees”² to the teaching staff. The documents were of national importance, but with a minimal influence on the academic community. It was necessary to inhibit the spread of plagiarism by a measure that will be fully respected in the everyday practice. That measure was SK ANTIPLAG.

²In original: Etický kódex zamestnancov vysokých škôl

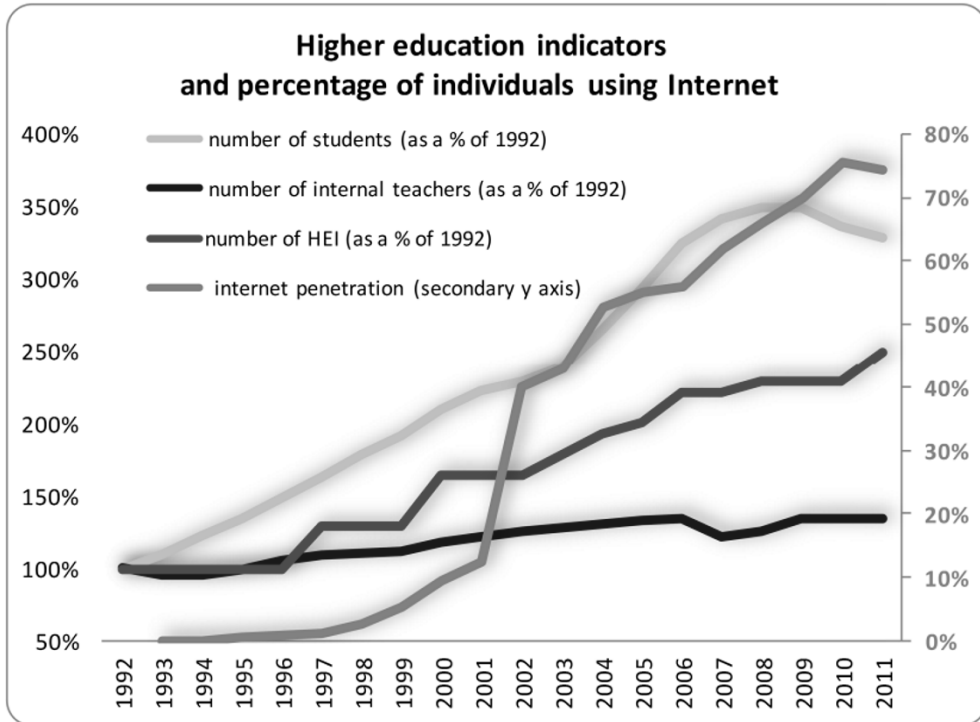


Figure 2. Growth characteristics

The time necessary to put SK ANTIPLAG into routine use was relatively short. The basic milestones were (see the paper *Strategies and responses to plagiarism in Slovakia (2013)* for detailed information):

- The Slovak Rector’s Conference asked the Ministry of Education, Science, Research and Sport (MinEdu) in February 2008 to coordinate the activities related to the acquisition of the plagiarism detection system.
- MinEdu decision in 2008: The system on a national level will be acquired to cover the collection, processing and originality check of the specified HEI theses to inhibit the spread of plagiarism.
- The Higher Education Act Amendment approved in October 2009 made mandatory for all Slovak HEIs operating under the Slovak legal order to send five types of theses for collection in the nationwide central repository before their defense

(bachelor's, master's, dissertation, rigorous³ and habilitation⁴ theses) in order to be checked for originality by the plagiarism detection system.

- MinEdu published the Methodological Guidelines concerning requisites of theses and dissertations, their bibliographic registration, originality verification, storage and access in August 2009.
- SK ANTIPLAG started its routine operation in April 2010.
- The theses registered in the CR from the September 1st, 2011 are publicly accessible (metadata and full text) according to a licensing agreement.

1.2 *How Does It Work?*

An important step was made by defining the uniform theses and dissertation collection methodology. There are defined metadata, licensing agreements and five types of theses (bachelor's, master's, dissertation, rigorous and habilitation) for all Slovak HEIs that will be accepted by the Central Repository of Theses and Dissertations (CR).

The author of the thesis has the obligation to submit the thesis, metadata and a licensing agreement to the local repository of theses and dissertations (LR) at HEI. LR collects theses, metadata and licensing agreements from authors and prepares the batches that are uploaded by CR in regular time intervals. HEI is the only channel for the delivery of the thesis to the CR. The thesis is stored in the CR for the period of 70 years from the date of its registration.

Manual for the Disclosure of Final, Rigorous and Habilitation Theses⁵ (2011) is describing disclosure procedures. In the licensing agreement, the author has the right to postpone the disclosure of the thesis by the CR by 12 months without giving a reason. The Dean or Rector has the right, based on the author's justified request, to postpone the publication of the thesis by the CR by further 24 months. In case the thesis or its part was published (printed) before it was sent to the CR, the CR will disclose only its unpublished part at the request of the author. In case the thesis or its part was published (printed) after it was sent to the CR, the author has the right to require that the disclosure of the thesis or its part will be stopped by the CR. If the thesis was disclosed by the CR, but "the thesis affected improperly the rights and legitimate interests of a third party, especially if intellectual property rights of a third party were infringed, or improper handling of classified facts or personal data, confidential information or trade secrets of a third party was identified", then the author or MinEdu can require that the disclosure by the CR will be stopped. The thesis may contain, for example, a trade secret – then the relevant part of the thesis (i.e. non-public documents) subject to the trade secret is not sent to the CR.

³A rigorous thesis or "small doctorate" can be received by a person with a master's degree. It requires that a candidate passes rigorous examination and defends his/her rigorous thesis; rigorous thesis is less valuable than dissertation; it is closer to master thesis than to dissertation.

⁴A prerequisite for the granting of the scientific-pedagogical degree "docent" (assistant professor) is a PhD title, a habilitation lecture, and submission and defense of the habilitation thesis.

⁵In original: *Manuál k sprístupňovaniu záverečných, rigorózných a habilitačných prác*

The author of the thesis decides if the thesis can be downloadable as a PDF file or he/she can require that the thesis cannot be downloadable and it can be visible only in the picture format.

After a batch of theses is uploaded by CR, the theses are registered and processed. Processing means that the theses are stored in the CR, their plain texts are sent to the comparative corpus, and they are checked for originality by PDS against the comparative corpus. The selected internet sources are a part of comparative corpus. After the originality check, the Originality Check Protocols are sent to HEIs and to the authors. The originality check protocol is a document that supports the decision-making. The examination committee decides whether a thesis is a plagiarism or not. All these steps have to be made before the defense of the thesis. After the defense, the thesis is publicly accessible (metadata and full text) according to the licensing agreement.

1.3 *Fruit*

The international research project “Impact of Policies for Plagiarism in Higher Education Across Europe” (IPPHEAE, EU funded, 2010–2013, Project Lead Partner: Coventry University, United Kingdom) carried out a survey in all EU countries. Country reports for 27 EU countries are accessible on the internet site <http://ippheae.eu/project-results>. The report “Plagiarism Policies in Slovakia” reads as follows:

“There were some notable differences between the Slovak surveys and the EU average. Almost all Slovak students (99%!) become aware of plagiarism before or during their bachelor studies. The EU average shows that 20% of students become aware of plagiarism during their masters/PhD degree or are still not sure about it.”

“... Slovak students are the most aware of plagiarism among all EU countries.”

“The most outstanding example of good practice is definitely the existence of national repository of theses. As it is run centrally and universities are obliged to upload their theses, students from all institutions have theoretically the same conditions. The other aspect is that the software tool provides just a protocol for matching with other sources. The decision about whether a given case is plagiarism or not lies with teachers and/or the examination committee and these may not always follow the same procedures.”

“Compared to other countries, Slovakia should be praised for its achievements. And it already was: The European Commission has awarded the Slovak Centre of Scientific and Technical Information the European Prize for Innovation in Public Administration.”

“The responses from Slovak students demonstrated the highest level of understanding about plagiarism within the whole Europe. Their unwillingness (in comparison with other countries) to receive more training on plagiarism is therefore understandable. The research team of the IPPHEAE project would also like to praise Slovakia for existence of national repository of theses and built-in plagiarism detection tools.”

Peta Lee underlined in the *University World News* (2014): “Student plagiarism might be alive and well and sprouting up in campuses around the world, but in Slovakia, at least, measures put in place in 2010 are bearing fruit.”

The representatives of HEIs in Slovakia stated positive benefits of SK ANTIPLAG on the academic community and on the public on the whole. See the paper *Strategies and responses to plagiarism in Slovakia* (2013) for more details.

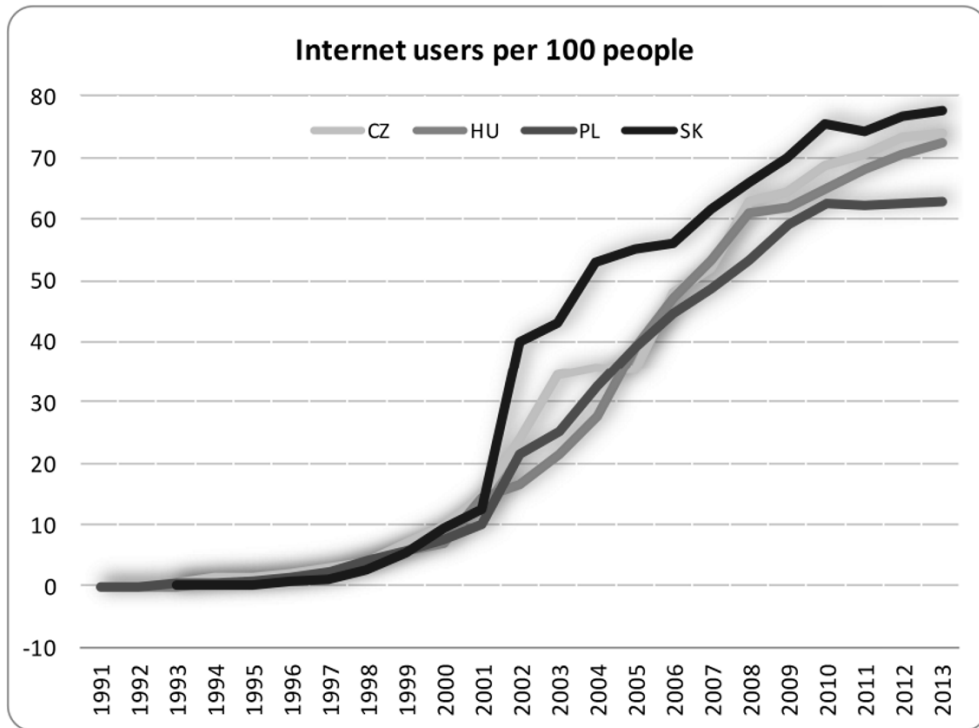


Figure 3. Internet users per 100 people (World Bank)

2 V₄: ICT indicators

V₄ countries⁶ are close to each other, not only geographically but also in terms of penetration of information and communication technologies (ICT). The following graph is based on the World Bank's World Development Indicators Database (2014). The indicator is the number of Internet users per 100 people. Internet users are individuals who have used the Internet (from any location) in the last 12 months and have used Internet via a computer, mobile phone, personal digital assistant, games machine, digital TV etc. Rapid growth began after the year 2001 in all V₄ countries and it was especially steep in Slovakia.

The data in the following two figures show ICT indicators extracted from the Eurostat database (2014). Figures 4 and 5 provide insights on students using computers daily and on students who use Internet daily. We can assume that the year 2012 in Figure 4 is a data collection error for the Czech Republic. Daily internet access by students became "standard" in V₄ region in 2010, in 2004 was this indicator very low. The period 2004–2010 is characterized by the rapid growth of daily Internet use by students, which is likely to be reflected in the growth in the spread of plagiarism.

⁶See <http://www.visegradgroup.eu/about>

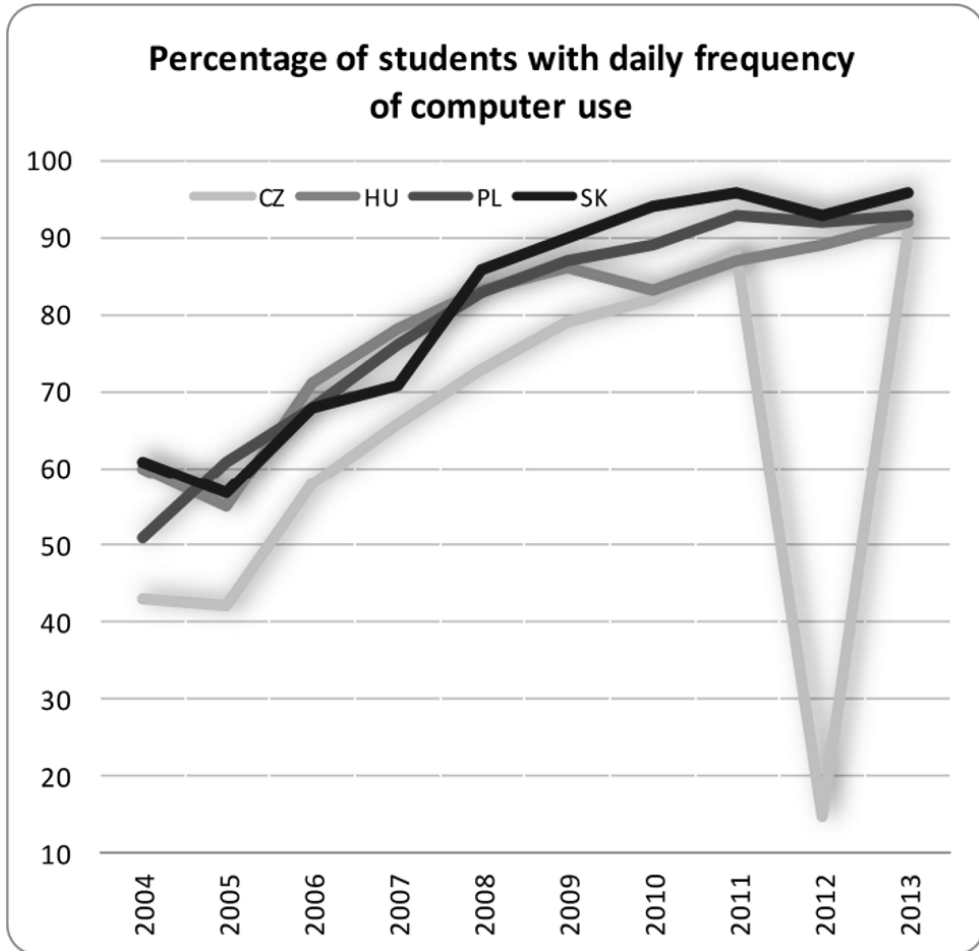


Figure 4. Percentage of students with daily frequency

3 The Fight Against Plagiarism: V4 and the Others

There are many measures that inhibit plagiarism. Plagiarism detection by means of ICT is one of them. In countries with plagiarism detection systems used, their use by HEIs varies widely.

In Slovakia, there is a strict definition what has to be sent for storage in the CR (theses, metadata, licensing agreements, thesis reviews). All theses incoming in the only CR are checked for originality by the only plagiarism detection system – this obligation for all Slovak HEIs is anchored in the Higher Education Act amendment. In general, repeated uploads of theses are not allowed to prevent ghost-writers from using repeated uploads to deliver better texts. In the academic year 2013–14, there were 4.06% repeated uploads. Theses and dissertations that were registered in the CR on

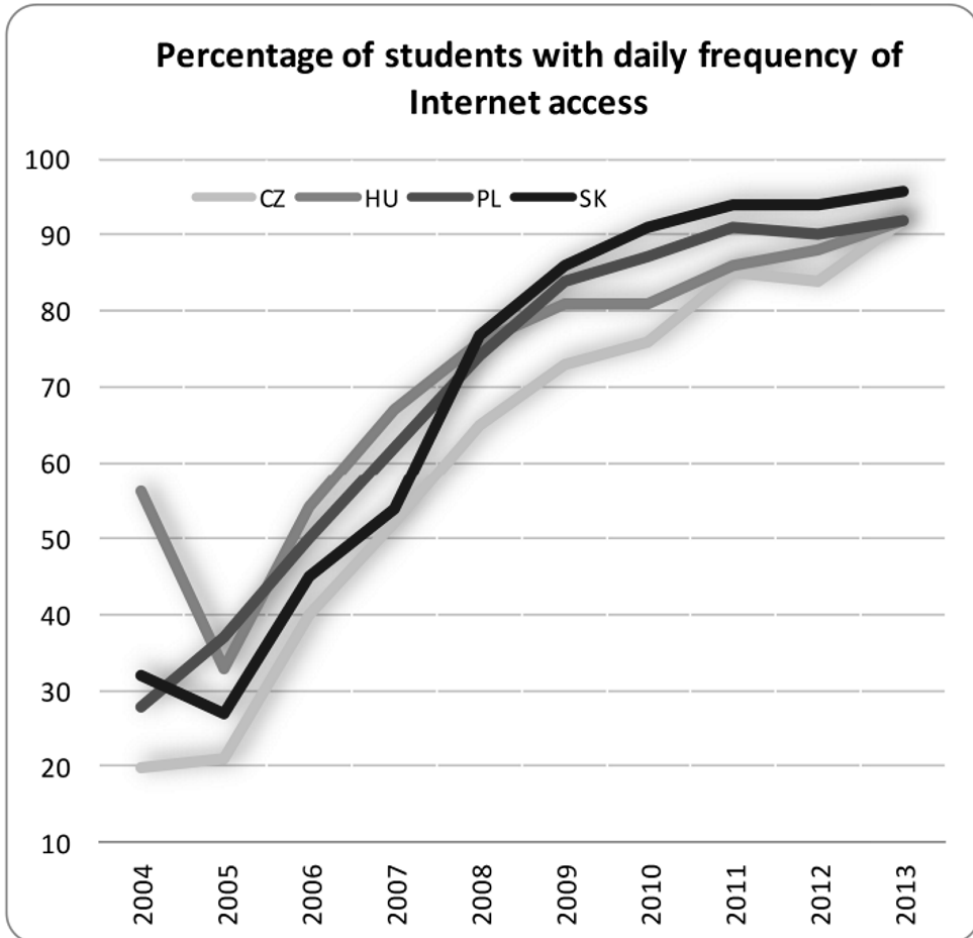


Figure 5. Percentage of students with daily frequency of computer use of Internet access

September 1st, 2011 and later are publicly accessible. The acquisition costs, operation costs and further development costs are covered by MinEdu.

In the Czech Republic, there is the system *theses.cz* (2014) in operation. The system is developed and administered by Masaryk University in Brno. The system is used to store theses in the register of theses (bachelor's, master's and dissertation) and all the related information (their names, names of their authors, etc.). It also searches for traces of plagiarism in the theses. The project started in 2008 and now 50% of the Czech HEIs use this system – 36 out of 72. The national registry of theses is publicly accessible. In comparison with the Slovak system, the use of *theses.cz* is voluntary and theses can be submitted repeatedly. Czech MinEdu supports this project.

In Poland (situation before October 1st, 2014), there is the system *plagiat.pl* (2014) used by 176 out of 444 HEIs, but in different ways. 21.6% of all HEIs (96) check all the

theses, 5.6% (25) of HEIs check theses produced only in some departments of HEIs and 18.0% of HEIs check theses otherwise. 73 (16.4%) HEIs deliver the theses to a common repository.

The Higher Education Act amendment that entered into force on October 1st, 2014 should substantially change the situation. A central repository of theses will be created, but mainly thesis supervisors will have access to it. “The amendment came into force, but the originality check will apply from the beginning of next academic year” (plagiat.pl, 2014). According to new rules, immediately after the defense, HEIs have the obligation to send to the central repository the texts of all theses (bachelor’s, master’s and dissertation) with the defined metadata. By the end of 2016, HEIs are obliged to deliver to the central repository all theses defended after the September 30th, 2009. According to PAP (Feb, 2015) in the emerging national repository of theses is already about half a million documents.

There are two main differences compared to the Slovak system: the theses will not be publicly available in Poland (Hołdyńska, 2014) and the theses will not be checked for originality by one plagiarism detection system.

Similar activities like in Slovakia, in the Czech Republic and in Poland cannot be found in Hungary. On the website of the Institute for Computer Science of the Hungarian Academy of Sciences, there is the information about the possibility to test the plagiarism search system. The statistical information from 2009 says that there are 10,000 users and that some university faculties use KOPI Plagiarism Search Portal on a regular basis (SZTAKI KOPI, 2014).

In three V4 countries, there is a visible tendency to create nationwide central repositories and to check every incoming thesis for originality. According to our knowledge, this approach cannot be seen in other parts of the world, even though it would seem so at the first glance.

The introduction of the paper by Rashid (2012) states that Turnitin – a plagiarism detection system – was disseminated to all public and private sector universities across Pakistan. It sounded like Slovakia has a doppelganger. However, the plagiarism detection tool did not cover all HEIs or all students.

In 2001, the UK decided to fund a project “Plagiarism Advisory Service” that later evolved into PlagiarismAdvice.org, which came into being in late 2002.

“The service’s aim was to establish a national strategy to allow UK higher and further education institutions to check the authenticity of student work. Universities and colleges were given access to the Turnitin text matching software, virtually unknown in the UK at that point, at no charge for an initial three years.” (PlagiarismAdvice, 2013)

The UK approach is presented in the same source:

“In the UK, Turnitin is currently used by over 98%⁷ of higher education institutions and over 44% of further education colleges and a growing number of schools.... models of use in UK institutions vary widely, with some institutions using the software as a wholly summative tool to confirm allegations of academic malpractice on the part of a student, and with the Originality Report providing vital case processing evidence, in the majority

⁷A 95% value can be found in the publication Weber-Wulff (2014), False Feathers: A Perspective on Academic Plagiarism, p. 148, where Barrie (2008) is cited.

Table 2

Languages by the type of thesis

Thesis type	SK	CZ	EN	HU	Other
Bachelor	91.84%	3.89%	2.26%	1.43%	0.59%
Master	92.18%	2.68%	3.34%	1.04%	0.76%
Rigorous	93.96%	3.06%	1.06%	0.90%	1.02%
Dissertation	86.74%	0.84%	8.87%	0.62%	2.93%
Habilitation	81.99%	5.26%	8.59%	–	4.16%

of institutions the value of the tool as a formative aid to support teaching and learning as part of the assessment process ...”

The information that Turnitin is used by over 98% HEIs in the UK seemed unreliable for us. We started to examine it and we found that there are 161 public HEIs in the UK (Higher Education Statistic Agency, 2014). The report *Privately Funded Providers of Higher Education in the UK (2013)* mapped privately funded HE providers.

“Our mapping research has identified a total of 674 named privately funded HE providers operating in the UK. This figure is a minimum estimate for the total number of providers, anticipating that some providers may not have been identified through the research process.”

This information shows that there is no exact statistics concerning private HEIs in the UK and that 98% estimate is biased. The size of the bias was not known. To be better informed, we contacted iParadigms Europe with the question whether the 98% included both public and private HEIs. The response was that the percentage relates only to public HEIs.

4 SK ANTIPLAG: A Valuable Data Source for Analyses

This part of the paper discusses the academic year 2013–14, i.e. the theses registered in the CR from 1 September 2013 to 31 August 2014. In the examined year, the CR contains 91.9% theses in Slovak, 3.2% in Czech, 2.9% in English and 1.2% in Hungarian. The remaining 0.8% comprises theses in other languages. Table 2 shows languages by the type of thesis. The relative number of theses in Slovak drops below 90% for dissertation and habilitation theses with an increase in the relative number of theses in English.

From the total number of theses in the examined academic year, there are 0.84% art theses for which the originality check protocol is not prepared. Hence, the CR contains 70 216 theses that underwent the originality check. At public and state HEIs, the proportion of bachelor’s and master’s theses is almost equal; the share of bachelor’s thesis at private HEIs is a little bit higher.

A uniform methodology for the collection of theses and the relevant metadata that is binding for all Slovak HEIs opens possibilities for various analytical outputs in such detail that other systems (that are not based on a uniform methodology for the collection of theses and metadata) are unable to provide. Some examples include: identical thesis titles (by supervisor, by HEI, by all Slovak HEIs), the number of

Table 3
Central repository by HEI type and thesis type

HEI type	Number of theses	Theses ratio	Type of thesis by HEI type					
			Bachelor	Master	Rigorous	Dissertation	Habilitation	Other
Public	52 789	74.6%	46.6%	45.1%	3.3%	3.9%	0.6%	0.4%
Private	16 618	23.5%	54.1%	40.6%	4.2%	0.9%	0.2%	0.0%
State	1 403	2.0%	48.0%	44.3%	2.4%	5.1%	0.1%	0.1%
Grand total	70 810	100.0%	48.4%	44.0%	3.5%	3.2%	0.5%	0.3%

Table 4
Types of theses by HEI types and similarity index

Thesis type	HEI type			
	Public	Private	State	All types
Bachelor	5.31%	13.88%	6.80%	7.61%
Master	5.66%	11.60%	6.72%	6.98%
Rigorous	11.55%	15.81%	9.70%	12.74%
Dissertation	4.36%	6.01%	7.58%	4.67%
Habilitation	3.51%	13.83%	0.00%	4.26%

theses pertaining to one supervisor, the percentage (index) of similarity of theses by supervisor, by field of study, by department, faculty, HEI, by types of HEIs etc.

The similarity of two texts is a statistical parameter of coexistence of similar words in these texts. A similar word is the same word in different forms (gender, number, case, etc.), a synonym in different forms, etc. Index (percentage) of similarity is the ratio between the number of characters of the text identified as similar to the total number of characters of a thesis. Pictures are not evaluated. Tables are evaluated only if in the text form. Theses are evaluated as a whole.

The spectrum of specialisations that can be studied at HEIs varies from HEI to HEI, so we do not consider average similarity percentage relevant for the comparison of HEIs. A table of average values for different types of theses by HEI type shows that except for dissertations, private HEIs show peaks. This is probably related to the fact that private HEIs are focused mainly on social and humanistic sciences, as well as health care and nursing care. Rigorous theses have the highest average similarity percentage at all types of HEIs. This is probably related to the fact that a rigorous thesis is often an enlargement of the master's thesis.

For further analyses, we monitored the *percentage of theses with the similarity index greater than 25%*. We first considered a 33.33% threshold; however, we rejected it

Table 5

Type of theses by HEI type and percentage of theses with the similarity index greater than 25%

Thesis type	HEI type			
	Public	Private	State	All types
Bachelor	5.69%	22.11%	6.98%	10.05%
Master	5.89%	16.01%	8.20%	8.14%
Rigorous	15.72%	22.89%	15.15%	17.76%
Dissertation	3.34%	2.72%	5.63%	3.37%
Habilitation	2.71%	18.52%	–	3.88%

because it generated more cases of zero frequency which complicated the comparison. Higher values of this indicator may be to some extent an indicator of the quality of the educational process at HEIs. The peaks of this indicator are reached at private HEIs for all types of theses except dissertations.

Rigorous theses have the highest proportion of theses the similarity index greater than 25% for all types of HEIs. Dissertation and habilitation theses have the lowest proportion.

Fields of study by type of thesis are a homogeneous group. For illustration, in the first step, we selected bachelor's theses and fields of study with a high proportion of theses with the similarity index greater than 25%; we then detailed it to the level of HEIs. The table can be further refined the level of faculties, departments and supervisors. The table shows the quality of work with students during the preparation of bachelor's theses. There are large differences among HEIs in the same field of study.

We expected that there is a relation between HEI ranking and similarity index. The Academic Ranking and Rating Agency (ARRA) assesses annually (for the tenth time in 2014) the quality of HEI faculties in Slovakia. It prepares their ranking on the basis of a comparison of indicators of quantity and quality of education and research. The criteria are divided into five basic groups – education, the attractiveness of study, research, doctoral studies and grant success. The publication Evaluation of HEI faculties 2014 – Ranking of HEI faculties based on the comparison of indicators of quantity and quality of education and research⁸ (ARRA, 2014) evaluates 112 faculties or one-faculty HEIs, comprising 104 public faculties and 8 faculties of private HEIs, in 11 groups of specialisations (it does not evaluate state HEIs). Below is a list of groups of faculties and HEIs according to the publication (ARRA, 2014), pages 14–19. Groups of faculties:

Technical Sciences (TECH) – civil engineering, electrical engineering, computer science, electronics, mechanical engineering and other technical fields;

Natural Sciences (PRIR) – mathematics, physical, chemical and biological sciences, earth and environmental sciences;

Medical Sciences (MED) – general medicine and stomatology, clinical medicine, pharmaceutical sciences, nursing and health care;

⁸In original: Hodnotenie fakúlt vysokých škôl 2014 – Ranking fakúlt vysokých škôl v SR na základe porovnania ukazovateľov kvantity a kvality vzdelávania a výskumu

Table 6

Bachelor theses by specialisation, by HEI (HEIs are omitted) and percentage of theses with the similarity index greater than 25%

Field of study	Theses percentage with similarity index >25%
Health and safety protection at work	25,00%
Health and safety protection at work	40,00%
Health and safety protection at work	13,33%
Health and safety protection at work	13,43%
Health and safety protection at work	23,41%
Protection of persons and property	8,96%
Protection of persons and property	26,63%
Protection of persons and property	27,54%
Protection of persons and property	16,76%
Protection of persons and property	22,66%
Agricultural and forestry technology	31,58%
Agricultural and forestry technology	33,33%
Agricultural and forestry technology	32,61%
Land construction	50,00%
Land construction	3,13%
Land construction	22,69%
Land construction	22,70%
Social work	100,00%
Social work	33,33%
Social work	31,58%
Social work	16,78%
Social work	16,84%
Social work	50,00%
Social work	21,81%

Agricultural Sciences (AGRO) – agriculture, forestry, veterinary medicine and related fields;

Economic Sciences (EKONOM) – economic faculties;

Other Social Sciences (OSTATNE SPOL) – faculties of social sciences with a focus on public administration, international relations, political and economic science, mass media communication and other related fields;

Philosophical Sciences (FILOZOF) – philosophy, history, languages, literature and other related fields;

Legal Sciences (PRAV) – faculties of law;

Pedagogical Sciences (PEDAGOG) – faculties of pedagogy;

Table 7

Significant correlations between the percentage of theses with the similarity index greater than 25% and ARRA ranking

Group of faculties	Correlation coefficient between percentage of theses with the similarity index >25% and ARRA ranking	<i>p</i> significance of the correlation coefficient	Number of faculties
TECH (technical sciences)	-0,5247	0,0175	24
PRIR (natural sciences)	-0,9669	0,0016	7
OSTATNE SPOL (other social sciences)	-0,6480	0,0311	13

Theological Sciences (TEOLOG) – theological faculties; and

Art (UMEL) – faculties focused on music, drama, film and visual arts.

This classification to some extent “homogenises” the material for comparison, although the homogeneity of these groups is lower than the homogeneity of groups by fields of study. This distribution was applied to the year under review and we attempted to verify the hypothesis that the ranking of faculties by those groups will be correlated with the ranking of faculties based on the percentage of theses with the similarity index greater than 25%. Hence we assumed that a higher percentage of theses with the similarity index greater than 25% may mean a lower ranking by ARRA (negative correlation).

The hypothesis was confirmed for natural sciences faculties and technical sciences faculties and for one group of social sciences faculties:

- mathematics, physical, chemical and biological sciences and earth and environmental sciences (PRIR)
- civil engineering, electrical engineering, computer science, electronics, mechanical engineering and other technical fields (TECH)
- social sciences faculties with a focus on public administration, international relations, political and economic science, mass media communication and other related fields (OSTATNE SPOL).

5 In Conclusion

The fight against plagiarism on a national level is bearing fruit. SK ANTIPLAG contributed to a significant increase in students’ awareness of plagiarism, as confirmed by the international survey, where the Slovak students placed first among all European Union countries. The theses are under multiple control: control of the supervisor, opponents, the examination committee and public control. However, we lack feedback from HEIs regarding the number of theses suspected of plagiarism and how they are handled. Although the percentage of these theses in with the similarity index greater than 40% is relatively low – 2.7% – it is almost 10,000 theses in absolute terms (from April 2010 to early April 2015).

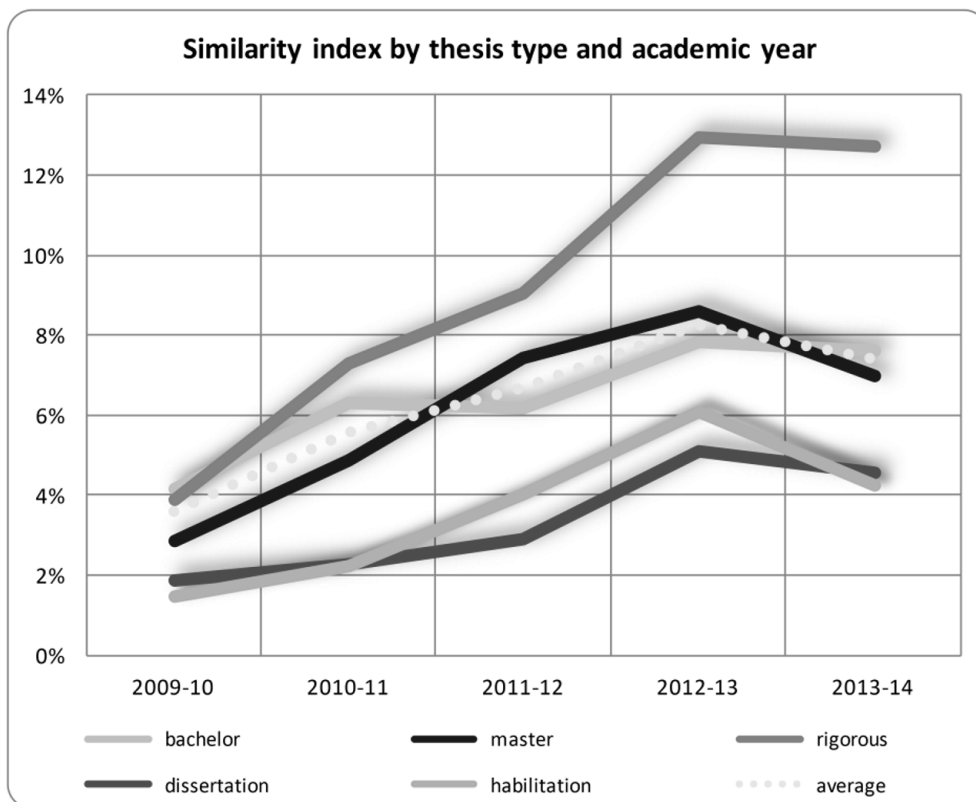


Figure 6. Similarity index by thesis type and academic year

The similarity index by thesis type and academic year shows a slight upward trend (except rigorous theses), which can be attributed to the widening of the comparative corpus (Figure 6). Rigorous theses recorded the highest growth, bachelor's and master's theses show about the same values; the same applies to the dissertation and habilitation theses with only slightly different values. The average is most affected by bachelor's and master's theses, whose share in the central repository is 92.4%.

The manner of implementation of the software to detect plagiarism in Slovakia is unique not only on the European, but also on the global scale. A uniform methodology for collecting theses and metadata provides us with a database that can produce outputs for the governing bodies that do not yet have equivalent in the world.

The issue of plagiarism is not just a matter of plagiarism detection systems, it should be seen in relation to academic integrity and good academic practices. We should encourage students to a higher level in this area. One of the solutions could be the implementation of a project whose output would be a methodological guidance for the area of academic integrity based on the best international practices, which would

then be implemented by HEIs in their internal policies. This could step up the fight against plagiarism and inadequate academic practices.

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THE PROBLEMS OF LEGAL AND ETHICAL REGULATION: A CASE STUDY OF THE PLAGIARISM LAWSUIT

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Abstract:

Academic plagiarism is one of the challenges the academic institutions meet in maintaining the high-quality standards of research and higher education. The contradictions between legal and ethical regulation of plagiarism cases indicate the need for more efficient solutions for prevention and resolution of the plagiarism and other acts of research misconduct at academic institutions. This paper presents a case study of the lawsuit where one Lithuanian University was sued for “illegal revocation” of a doctoral degree due to plagiarism. The arguments provided by the parties to the legal process during the court hearings illustrate the prevalence of cynical attitude towards ethical norms and regulations in academia as well as in wider society. The authors suggest that academic institutions should rely more on the multiple benefits provided by ethics tools and that the congruence between legal and ethical norms is essential for building academic integrity.

Key words: plagiarism, ethics, law, ethics institutionalization, academic integrity

1 Introduction

Plagiarism cases that emerge in the academia of different countries regularly reveal the incongruity between legal and ethical regulation of this issue. Universities unwillingly and inconsistently deal with plagiarism (Luke, Kearins, 2012), are afraid to apply sanctions and wait until the courts will do it. On behalf of the courts, they often return the evaluation of plagiarism to the academic institutions (Sonfield, 2014) or solve only single cases and substantially do not contribute to solving the plagiarism issue as a systematic problem of academia. Apparently, the lessons given by the accidentally found and legally investigated acts of plagiarism are not sufficient to prevent from this wrongdoing on the macro- or mezo-levels of a science system. Every single lawsuit of plagiarism is dealt differently, neither academic institutions nor the courts share the common attitude: different decisions and unequal sanctions are applied. As Sonfield notes, “this separation of the legal versus the ethical nature of plagiarism is a complex one, involving the subtleties of the law and past actions of the courts, and involves a number of issues” (Sonfield, 2012, p. 80). Every single instance of plagiarism is unique and requires careful examination of all the circumstances and facts, but universal standards on the systematic level also should exist and serve as a prevention of plagiarism and other types of research misconduct.

Plagiarism as an instance of research misconduct is not only a problem of individual morale and behaviour, but also an indicator of inefficient management by academic institutions. Those academic institutions that become aware of plagiarism as an organizational problem start to manage academic integrity through the system of ethics infrastructure which enables to reduce academic misconduct efficiently. It is the

ultimate goal and function of ethics infrastructure that is introduced and sustained by the processes of ethics institutionalization (Vasiljević, 2014).

From the point of view of academic institutions plagiarism, just as any other academic shortcoming, is unwanted and harmful behaviour that should be replaced by academic integrity, formed by the use of ethics tools. Academic integrity covers “the values, behaviour and conduct of academics in all aspects of their practice (teaching, research and service)” (Macfarlane, Zhang, Pun, 2012, p. 3). Academic integrity, defined as a professional conduct precisely adhering to all the institutional standards, policies and regulations, is a desirable model for research conduct (Bertram Gallant, 2008; Macfarlane, 2009; McCabe, 2003; Steneck, 2006; Whitley, Keith–Spiegel, 2001). This model of research behaviour is unachievable without the standards, principles, policies and procedures adhering to which both the individuals and academic institutions could self-regulate their actions.

Researchers of management and business ethics apply the conceptual framework of integrity management to the analysis of academic integrity (LeClair, Ferrell, Fraedrich, 1998; Paine, 1994; Petrick, Quinn, 1997; Shrivastva, and Associates, 1988; Tichy, McGill, 2003; Worden, 2003). From this point of view organizations are seen as corporate subjects of morality, that encourage their members to refuse from unwanted or socially unacceptable behaviours by introducing a set of relevant processes and procedures aimed at it (Brenkert, 2004; Brown, 2005; Johnson, Phillips, 2003; Kaptein, Wempe, 2002; LeClair, Ferrell, Fraedrich, 1998; Maak, 2008).

The discussions in legal academic literature on the relevance of legal and ethical regulation of plagiarism also stress the necessity for academic institutions to enforce and develop their own institutional regulations or measures to be applied in such cases, as legal rules are not applicable to all the forms and cases of plagiarism and do not grasp the peculiarities of research activities: “These authors emphasize the need for publishers, journals, colleges and universities to develop more clear definitions of academic plagiarism, to instate written and published policies, and for academics and their professional associations to place a stronger emphasis on intellectual honesty. More education on the issues of such honesty and dishonesty to new academics is also urged (Bast and Samuels, 2008; Latourette 2010)” (cited in Sonfield, 2014, p.79).

As a primary reason for incongruity between legal and ethical regulations the difference between the objects covered by copyright law and notion of plagiarism is most often discussed: plagiarism comprises the whole creative process meanwhile copyright covers only the result of creative activity: “At a basic level, plagiarism involves the creative process while copyright infringement involves the creative result. [...] The creative result nature of copyright infringement involves the damages caused by the infringement to the original author of the work [...]. Cases of academic plagiarism rarely, if ever, impact the original author’s use of, or the economic interest in, his or her original work in a clearly quantifiable manner (Stearns 1992)” (Sonfield, 2017, p. 80). This is one of the reasons why the cases of plagiarism are rarely dealt with in the courts.

As academic plagiarism covers a much wider range of research activities than copyright, it can’t be grasped or solved solely by legal measures and therefore it is often not a real legal issue: “While the law is relatively clear with regard to copyright

infringement, academic plagiarism generally does not involve such infringement under the law. Thus, while copyright infringement is clearly a legal issue, academic plagiarism is generally a professional and moral issue, governed by established academic ethical standards, and by university and other professional guidelines and policies, where they exist” (Sonfield, 2014; Nimmer, 2004; Stearns, 1992).

Academic plagiarism causes material damage. But more importantly it causes moral or reputational harm to various subjects: an individual author, the profession of a researcher, the field of research, an academic institution or even the whole institution of science as its basis of advancement is the originality of research and due credit of it. Thus, plagiarism should be dealt as morally reprehensible and unacceptable dysfunction and managed with a set of ethical tools. Unfortunately, such a clear moral position is not recognizable in reactions towards plagiarism in many academic institutions (Luke, Kearins, 2012).

Academic institutions which introduce and apply ethical tools directed to deal with academic misconduct and particularly plagiarism, most often mimic or replicate legal measures and use legalistic forms of discourse: “The language of plagiarism as used in many university plagiarism policies and processes has developed from legal concepts of copyright. [...] Many tertiary institutions have drawn heavily on the language of Law as the discourse chosen to define and describe how plagiarism will be handled in a university. [...] reliance on legal language positions institutional approaches to university plagiarism policies within legal rather than learning frameworks. As a result, teaching and learning activities designed to enhance and improve understanding plagiarism and academic integrity may become peripheral to quality assurance measures” (Sutherland-Smith, 2014, p. 32).

The norms both of the law and ethics are drawn on the basis of the grounding concepts of human good (public good, public interest, social welfare). Modern and morally mature societies have internalized the rules and norms as a cornerstone of decent life and compliance is viewed as a respected trait of individual personality and as highly valued social virtue imperativeness of which applies to all the subjects, including organizations as moral entities (Kaptein, Wempe, 2002). The civilized social life and productive activity of organizations are unimaginable without it (Worthley, 1999).

Globally a concern for academic integrity is growing as it became apparent that the habits of academic dishonesty formed during the studies later are moved to professional practices causing various negative consequences (Martin, Rao, Sloan, 2009; Nimmer, 2004; Larkham, Manns, 2002). The knowledge and competencies not acquired due to small cheating later turn into particular economic and ecological losses (Vasiljeviėnė, 2011). Some societies achieve such moral maturity level when compliance and integrity are taken for granted by natural evolution; others purposefully form such understanding through the use of ethics institutionalization (or both ways are used).

A variety of ethics tools applicable in forming the desirable behaviour of employees in the organization enables to accomplish more functions than a legally sanctioning or educational approach to misconduct. The authors of this paper emphasize the advantages of more subtle impacts of ethics tools: honour sanctions, reputation mechanisms, informed consent, the formation of transparent and just organizational

structures and functions through the use of management methods. All these benefits may be provided by the ethics institutionalization in academic institutions.

Even in the countries globally considered as leaders in higher education (USA, UK, or Australia) not all the academic institutions efficiently apply ethics tools and still are looking for systemic solutions to fight various forms of research misconduct. The countries and academic institutions differ in their reactions and measures used to deal with plagiarism, i.e. they either a) tolerate it (try to ignore or hide it, avoid to mention it or publicize the fact, especially if senior researchers and managers are involved, researchers fail to trigger a scandal or become whistleblowers), or b) demonstrate intolerance by transparently and consistently fighting it as any other socially harmful behaviour. Ways of reacting depend on the socio-cultural environment existing both on mezo- and macro-levels.

Problems of dealing with plagiarism are even more severe in those countries that only recently started following the standards and good practices of the advanced leading academic institutions. In such transitional cultures, the understanding of the need and benefits provided by ethical regulation is very weak. Usually, legalistic regulation is viewed as entirely sufficient in all types of professional activity; meanwhile, ethical regulation (limited to ethics codes and commissions) is used only to comply with formal requirements of legal acts. Moreover, openly nihilistic or cynical attitude towards ethical standards predominates: in a professional realm all means to achieve the goal are acceptable if they do not breach any legal act.

Similar features of such transitional socio-cultural environment are observed in Lithuania, which underwent many political and social transformations during last 25 years. In public discourse and organizational practices, there are a lot of examples of lack of respect for the rule of law and integrity. There is a common tendency to imitate the European and global standards in case they cannot (or are not perceived as worth) to be met. These characteristics are rudiments of the Soviet rule, when citizens were excluded from law-making, and high standards and the ideal of a quality of life were merely sound declarations with no relation to actual reality. The citizens did not interiorize laws and norms introduced in such way, and they were not committed to fulfil, obey or respect it. Therefore, people developed moral justification for violating or imitating soviet normative regulations (Ungvari-Zrinyj, 2001; Vasiljevičė, Freitakienė, 2002). The society learned to view the laws as a set of empty declarations which “are created to be broken” or can be “turned to the direction you need”. The perceived gap between the declared norms and actual practices results in a sceptic attitude towards ethics. The cynical view has deeply entrenched in everyday life of the society, as incongruity between the moral norms and actions is taken for granted (people declare high moral values, but do not hold to them while making actions). The predominance of cynical attitude towards morale is a result of intensive and numerous societal transformations that have brought the society such radical changes in political structures, values systems and norms that those systems and structures started to be perceived as temporary, arbitrary and eventually not functioning in life (the so-called normative confusion or major normative shift) (Sverdiolas, 2006).

Within such cultural mindset, it is natural that ethical regulation in organizations is very narrow as no one believes it can actually work. In academic institutions of

Lithuania ethical regulation is limited to ethics codes and commissions. Ethics codes of these institutions are poorly developed, reviewed only in case if higher education laws change substantially; thus they are not adaptable to actual challenges academia faces. Notably, ethics commissions when investigating cases of research misconduct also tend to ground their decisions on more “solid” institutional documents, i.e. having clear legal status, e.g. statute or studies policy than on ethics code. The study of ethics codes of all Lithuanian higher education institutions has revealed that in majority of them “plagiarism” is not mentioned and defined; if it is mentioned, it applies only to one group of academic community, i.e. students. None of the analysed ethics codes mentioned academic plagiarism (Novelskaitė, Pužėtaitė, 2013). This fact means that Lithuanian academic institutions do not use ethics tools effectively in dealing with research misconduct. As academic institutions lack knowledge, measures and skills how to solve issues of academic misconduct, they avoid taking clear decisions and tend to pass them on legal institutions.

One of the aims of this article is to demonstrate this symptomatic attitude towards legal and ethical regulation of research conduct through the case study of the plagiarism lawsuit recently investigated in Lithuanian courts.

2 Material and Methods

Several research methods are applied in this paper: a case study, non-participating observation (participation in court hearings), document analysis (court protocols and notes from the court hearings). The plagiarism scandal lasted for a long period (2003-2015) and was discussed in national mass media on several occasions. Chronologically detailed description of the case and ethical interpretation of it was published in an academic journal (Jurčiukonytė, 2014). In the analysis of this case, the authors limit their research to the court process (2012-2014) where the plagiarist sued the University for revoking his doctoral degree.

This case of plagiarism is vast and complex from the ethical point of view; it is impossible to explore all the aspects within the limits of this paper. Thus, the case study is concentrated upon the positions represented by the parties, the arguments they provided and the attitudes towards regulation of law and ethics in the case of plagiarism. The description of most significant allegations will be presented, followed by the discussion of results. In the description of the case all the expressions or longer phrases of the parties, cited from the court protocols or decisions, will be indicated with abbreviated reference “CP” (Court Protocols, Civil Case No. 2-457-773/2012-2014).

3 The description of the case

The first revocation of a doctoral degree during the period of the Independent Republic of Lithuania took place in 2012. The degree was revoked after 10 years the doctoral thesis was defended when the University identified the breach of academic integrity in the dissertation (the results previously published by other scientists were used by the plagiarist as his own in his doctoral thesis). One of the researchers whose data was used improperly noticed this fact soon after the dissertation was defended (2003)

and informed about it the University (alumni of which they all were). Although the correspondence and various discussions of the University and governmental bodies and even legal investigation took place during the extensive period (2003-2009), no clear decision or action was undertaken. Partly the decision was complicated due to the form of the plagiarized data. It was the data from the laboratory experiments expressed in the form of tables and graphs that according to the Lithuanian Copyright Law is not an object of the copyright. Another possible reason why the plagiarism case was not resolved was the big impact of the plagiarist's father. He was a professor of the same science area at the same University, a head of a department and the supervisor of those researchers whose data was used by the plagiarist. From the 4 researchers who previously announced the data in their dissertations and articles, only one raised the issue of the plagiarism, in the beginning internally, in the University, but later as there were no actions from the University, publically as well (we further refer to this researcher as "the author"). In 2009, the new Law of Science and Education was adopted. It introduced new legal norm, i.e. the right for universities to revoke the scientific degrees due to the facts of the breach of academic integrity (including previously issued degrees). In 2011 new rector of the University finally decided to end up public discussions about the plagiarism case and appointed the expert group to evaluate the academic integrity in the discussed dissertation. As the expert group decided that academic integrity was breached, the rector took the decision to revoke the degree from the plagiarist.

The plagiarist represented by the lawyer and supported by his father in the court as a third party directly related to the plaintiff claimed that the University revoked his degree illegally due to multiple legal and procedural breaches. Major arguments of the applicant that are relevant to the subject of this article maybe be grouped as follows:

1. previous legal investigation and court decisions did not find the copyright infringements in the dissertation thus the University had no right, necessity or legal basis to restart the examination with respect to plagiarism in the dissertation;
2. the procedure of revocation proceeded by the University was created and applied incompatibly with the legal acts and regulated procedures;
3. the revocation of the degree is a result of personal conflict between the author and the plagiarist's father, and the plagiarist himself is the "demonstrative victim" of this conflict.

Further we analyse all three claims in detail aiming to provide typical illustrations and most important arguments used by the parties with respect to it.

1) "There is no copyright infringement in the dissertation; therefore there is no other reason or legal basis for the University to examine it with respect to plagiarism or academic dishonesty".

During the entire court process the plagiarist purposefully aimed to equate the object of copyright and plagiarism assuming that the data he used from the research of previous scientists is not under the copyright thus they have no authorship and can't be neither stolen nor plagiarized. The plagiarist resented that the Expert group appointed by the

University motivated their decision about his academic dishonesty with a non-existing notion of “research integrity” that is not defined in any legal act. As he put it, “research integrity” is “a new principle and combination of words” (CP) which previously did not exist: “the term “research integrity” appeared in the University’s Regulation of doctoral studies only in 2011. Meanwhile I defended my thesis in 2002, at the time when this regulation did not exist; thus I could not breach the principle of “research integrity” (CP). Moreover, the plagiarist sought to prove that the notions of “academic integrity” and “research integrity” are two different terms and officially asked the State Commission of the Lithuanian Language to explain it.

The University argued that the basis for the revocation of the degree was the obligation of the researcher clearly to reveal the relation of his research with the research previously done. The lawyer of the University, who represented his client during the whole process, explained to the court: “Previous legal investigation found that many graphs from other researchers were used without references in the dissertation. Although this fact was not recognized as a copyright infringement, it is significant with regard to research integrity. The doctoral student must define the originality, the novelty of his dissertation and precisely define the relation of it to the works of other authors” (CP). The plagiarist and his father protested it: “Can you indicate the law that allows you to say that the reference is obligatory under the graph? Where it is said that the graphs need to be cited, where is this methodology regulated?” (CP).

The supervisor of the plagiarist, the head of the department at the time, while witnessing in the court firmly supported the position of the plagiarist: “Academic dishonesty would be in the case of copyright infringement. No one can forbid using the dissertations of others, and I do not see anything dishonest here. If the work is plagiarized from A to Z then it is dishonesty, but if the work of others is used for the purposes of review, in parts and helps to widen the scientific basis, it is being done everywhere else in the world. I have authored dozens of books. Requirements for doctoral thesis today are different; it reminds me of a situation as if you are examined after ten years. Of course, you can go through an examination ten years after your studies, but under other framework and according different rules. Dishonesty appeared only after years” (CP).

The plagiarist denied the fact of the plagiarism by saying that the research data, published in the dissertations and articles of other authors in a form of graphs and tables, used in his thesis without references, is not an object of copyright infringement. Furthermore, according to the plagiarist, the generation of the data and its graphical representation “did not require intellectual efforts”: “Graphs are produced by a group of people and it does not require intellect” (CP). (Meanwhile the author explained that for every graph and data set to appear it took long hours in the laboratory.) Later trying to minimize the value of the data the plagiarist called it simply as “pictures” (so frequently that even the judge in his final decision also puts it as “graphs (pictures)”).

The court disapproved this claim saying: “that “research integrity” comes from the general principle of honesty (*bona fides*). [...] In the legal system of Lithuania the principle of honesty is embedded in a Civil Code. [...]. Although “research integrity” *expressis verbis* was not defined in the Regulation on Doctoral Studies [...], but its ultimate content was embedded in the requirements for the doctoral thesis and its

defence procedure” (CP). Thus, the court stated that the principle of “research integrity” is implicitly incorporated into the more general legal norms and documents, generally and specifically applicable to research activity.

2) “The University revoked the degree by breaching the series of legal acts, regulated procedures and exceeding its power.”

The plagiarist blamed the University for numerous legal and procedural violations during the process of degree revocation. He claimed that the expert group was comprised illegally, the functions appointed to the group were incorrect, the experts were not from the right disciplines (had no necessary expertise to evaluate his dissertation), the plagiarist had no right to offer his candidates as the experts; the experts being scientists of physical sciences could not assess the issues of “research integrity”, etc. Moreover, the plagiarist questioned the norms of “research integrity” and “degree revocation” in the related laws; he even intended to apply to the Constitutional Court to evaluate these norms considering their conformity with the norms of the Constitution. The judge rejected this intention and continued further hearings.

The lawyer of the University explained that legal acts mention only the right of degree revocation in case of breach of research integrity but says anything about the procedure of revocation. Thus, the University had to create the procedure on its own, following the principles of legality, transparency and proportionality. The expert group was comprised of the experts delegated from different institutions, all the documents and information investigated by the experts was available for all the interested parties on-line (the plagiarist and the author as well). All the revocation process (the group meetings, project of conclusions, etc.) was organized by the lawyer or in consultation with him. One of the experts who witnessed at the court explained: “We knew that we were sued after our decision; therefore we asked the lawyer to participate everywhere and help us” (CP).

The court rejected this claim by stressing the autonomy and freedom of higher education institutions to choose and define inner procedures of degree revocation. In its decision it said: “In doing this the University has to follow the standard of highest responsibility, carefulness and precision and hold to the principle of legal state in order that the rights of interested persons are ensured and especially that the rights of a person whose degree is under scrutiny are protected (the right to be heard, to provide evidences, explanations, etc.)” (CP). Besides, the court noted that by the right to revoke a degree a university is accomplishing its function of an inner quality assurance in the preparation of researchers. The University held to all these principles while judging upon the degree of the plagiarist, concluded the court.

As witnesses of the case were invited the members of dissertation defence committee which attributed the degree (2002) and the members of the expert group that recognized the breach of research integrity (2012). Participants of dissertation defense committee witnessed that 1) the thesis made an overall very good impression (“it was thick”, “it was much more lengthy than others”, “very comprehensive research”), 2) that the doctoral student was very confident and defended its thesis very well, 3) there were no doubts that the thesis was original and that the student conducted all the research

himself. At the final decision of the court the defence committee was reprimanded for too superficial assessment of the doctoral thesis of the plagiarist: “the committee was obliged to explore carefully who is the author of the data and graphs, not to judge only upon the general impression of the thesis” (CP).

3) “The revocation of the degree is a result of personal conflict between the author and the plagiarist’s father, and the plagiarist himself – the demonstrative victim of this conflict”.

The plagiarist held to the position that all the plagiarism scandal and the revocation of the degree is a personal conflict between researchers. “The conflict is evident, namely it is the father and the son issue. From the first semester, everybody was telling me that I have no possibility to work in this University”, said the plagiarist. The father of the plagiarist who allowed his son to freely access and use the data of his doctoral students, cited the comments of others on the personal character of the plagiarism scandal in the court: “It’s a pity that a young man became a victim of the conflict between senior ones” (CP); “expert group having recommended revoking the degree punished this young man for a second time. It can be proved by the thoughts expressed in the mass media that the author whose work was plagiarized was fighting both with the son and the father. She devoted her life to destroy this doctoral degree. Such aims are beyond any limits of human decency” (CP).

The witnesses, mostly ex-colleagues or doctoral students of the plagiarist’s father also were making allusions to the personal conflict behind the plagiarism case: “My morale does not allow me to judge why all ended like this, I prefer to keep silent here” (CP). They openly supported him and his son, demonstrated their loyalty to his authority, e.g. “If not your data and your permission to use it, probably I would not exist [as a researcher]” (CP).

“The University revoked the degree only due to the efforts of the author to publicize the libel lasting for long years against him, his father and the University”, asserted the plagiarist. He cited the words of the University rector told him personally that the revocation could have been not necessary, but it was the only measure to stop further public discussions and complaints of the author. The representative of the University did not deny it: because of the pressure of mass media and governmental bodies, “the University could not stand still without doing anything, we had to investigate it” (CP).

The plagiarist did not see any immorality in the method he chose to use in his doctoral thesis. On the contrary, he called the plagiarism scandal and the revocation as an immoral act. To his mind, the degree revocation process and its publicizing is inappropriate from the moral point of view: “Unjustified conclusions, built upon the principle of “research integrity”, created by the expert group, gave a basis for the rector to achieve the dishonourable goal: to recall the doctoral degree for the first time in the history of Lithuania after 10 years since its attribution. I do not agree with such irresponsible decision of the rector because this act not only punishes a person undeservedly but also humiliates the prestige of researchers in the society” (CP). His father added: “the publicizing of such information humiliates the prestige of the University. It humiliates me as well” (CP). The plagiarist called the conclusions of the

expert group as “undefined and unmotivated, contradicting both to the law and the principles of good morale, because I was made a demonstrative victim for the system of science and higher education” (CP).

During the court hearings, there was emotionally tensed atmosphere between the parties of the case, in particular between the plagiarist, his father and the author. The plagiarist, teamed up with his lawyer and his father, kept to the tactic of attacking, used the offending tone while raising questions to the witnesses (the expert group members or the author). The ex-colleagues of the author expressed the depreciating attitude towards her efforts, viewed her as the one who ruined the peaceful life of the department and beautiful memories of “old good times when we were young”.

The end of the court process and the final decision

In the final decision the court explained the “research integrity” as it is interpreted in the legal doctrine: “It is such an inappropriate behaviour in the field of research which breaches researcher ethics during the research. Research dishonesty usually means the fabrication or falsification of research actions, the plagiarism of scientific results and findings, duplicate publication”.

The court concluded that the fact of research integrity breach is objective, and it was proved by the University in a proper way: “the complainant [i.e. plagiarist] used the scientific results (data) and findings of other researchers that was visualized in 58 graphs (pictures) out of 119, without giving reference neither to the dissertations or publications of the authors, nor to the data basis personally accessed [from the father’s collection of his students works]. The court concludes that such an inappropriate conduct in research was a breach of researcher ethics and it resulted in objectively incorrect evaluation of quantitative and qualitative indicators of his work, judging upon meeting the main requirements of the scientific research” (CP).

Rejecting all the claims of the plagiarist, the court also expressed the critique towards the University for not carefully ensuring the quality of the process of researchers preparation: “The University only after huge efforts of one of authors whose data was plagiarized and only 10 years after the defence and attribution of the degree, conducted a careful examination of possible research dishonesty. It is to be noted that the University has to introduce and apply an efficient doctoral studies and thesis examination control system so that the facts of research dishonesty would be identified in due time without causing the breach of other person’s legitimate interests and rights” (CP). At this point the University representative agreed: “University is a community of researchers. The lack of the competence allowed this situation to evolve so far. Yes, the University could undertake serious actions straight after the conclusion of its Ethics Board (2003), but there was not enough decisiveness and will” (CP).

The plagiarist put the appeal to the court of higher instance, but the board of the judges also rejected his claims and approved the court decision to be applied without changes.

4 Results and discussion

The described lawsuit raised three major issues in terms of legal and ethical regulation that were mostly discussed and evidenced. Below all three of them are concluded and evaluated. Afterwards follows the overall discussion and conclusions.

1. “There is no copyright infringement; thus there is no plagiarism or research dishonesty.”

The norms of research integrity (in this case, proper references to previous research) are perceived as an axiom in academia, but the plagiarist interpreted it as an entirely legal norm that does not exist if not imposed by a legal act. The plagiarist’s defence against the accusations of plagiarism rested only on legal standards and completely ignored the norms of academic ethics. The opinion that research integrity did not exist before it was mentioned in Regulation of Doctoral Studies is an illustration of the cynical attitude towards ethics we discussed in the introduction.

2. “The University revoked the degree by breaching the series of legal acts, regulated procedures and surpassing its power.”

The law introduces the right of a university to revoke the degree in case of research misconduct but not the procedure how to do it. The University in this particular case has created the procedure following the legal principles and with the close assistance of the lawyer. The University chose a form of the *ad hoc* committee instead of its permanent ethics commission and obliged it to take the decision having legal status. It means that the University considers the decisions of ethics commission as a not sufficient for the rector’s decision to revoke the degree. The revocation procedure, created for this particular case, was not (and probably is not) at the place as a standard operational procedure applicable in such cases. The court decided that the University applied the revocation procedure correctly from the legal point of view, but noted that it was not done in time (ten years earlier, as the fact of plagiarism was reported). The University did not control and prevent the “unethical doctoral thesis” nor during the preparation period or defence procedures, neither after the allegations of plagiarism became official and publicized. The role of the plagiarist’s father as an influential figure at the University and in the plagiarism scandal also remained unevaluated from the point of view of research integrity. It was obvious that the University avoided look deeper in the preconditions of the plagiarism scandal and to achieve maximum transparency in this story. The University revoked the degree not by its will but because of public pressure. It took care of research integrity by doing as little as it was necessary to end up the public escalation of the scandal.

3. “The revocation of the degree is a result of personal conflict between the author and the plagiarist’s father, and the plagiarist himself – the demonstrative victim of this conflict.”

The plagiarist interpreted whole plagiarism “bubble” as a personal conflict between the author seeking to prove that her work was plagiarized and his father. The plagiarist depicted himself as a victim of this conflict. Also he expressed his disappointment that the University surrendered to the pressure of mass media and governmental institutions, that it did not defend him, was not loyal to him. The plagiarist did not admit any fact of plagiarism or research misconduct in front of any evidences or at any moment of the court hearings (“deny everything, no matter what”). On the contrary, he reversed and used moral norms to evaluate the revocation decision, and especially the efforts of the author by calling it “public libel against him, the University, the prestige of science and academia in general”. The representative of the University did not hide the sceptical or depreciating attitude towards the role the author played in the plagiarism scandal as well.

The final decision of the court was supportive of the University’s actions, to the research integrity as such, also appreciating the efforts of the author who aimed to achieve the ethical evaluation of the plagiarism. But the court hearings were not so friendly and positive, particularly in respect to the author. The plagiarist’s lawyer neglected, reverted or manipulated the norms of research integrity for his client’s purposes. During the period of the degree revocation lawsuit, the plagiarist’s father, represented by the same lawyer, sued the author for the libel against his person in the same court. In two months the same court brought out two very contradicting verdicts in two lawsuits directly related to the same scandal of plagiarism: on the one hand, it recognized the fact of plagiarism, legality of degree revocation and emphasized the efforts of the author in it, on the other side, it called her efforts a libel and punished her with an enormous financial penalty (much too heavy for her as living only on retirement pension). The two lawsuits were heard by two different judges, but personal differences should not become an obstacle to ensure justice consistently.

The case is an example of the viewpoint eliminating ethics from the legal judgment (“plagiarism is to be judged only by legal, not ethical categories”). We face typical situation here: the law is not able to regulate every particular activity and to safeguard it from all the forms of misbehaviour. If relevant organizations do not take measures of ethical self-regulation by proper ethics tools, there is no other way to stop it just through legal sanctions if the fact of employee misbehaviour is caught and proved. There are a lot of instances or research misconduct that law does not consider as a breach, and academic institutions also do not have regulations how to deal with it. Thus, there is a certain gap between the legal and ethical regulation of research which is left on behalf of the assumed researchers’ consciousness.

The cynical attitude to the norms of research ethics and attempts to present the fact of plagiarism as a personal conflict in this case implies that the stage of moral development in the society or this particular academic institution can be defined as pre-conventional one, i.e. there is no social agreement on what is considered to be right or wrong, just or unjust, objective fact of subjective interest. In this stage, any

means are justified if they help to meet one's goals. Thus, it becomes acceptable to freely manipulate with moral norms and legal acts in order to prove that what is an obvious fact, actually does not exist, that the objective fact (plagiarism identified by multiple expert examinations) is translated as a subjective fantasy, libel, and retaliation. A researcher in technical sciences suddenly becomes an expert in legal acts, at the same time completely forgetting that methodological requirements for academic writing and basic norms of research integrity existed in all the times and political systems. This attitude shared by a part of the academic community prefers to draw on the old habits, accepted pseudo norms or rule of authority than following core values of research or judging by objective criteria. Objective point of view does not exist, either one is loyal and supports the position of the academic group or is a traitor if dares to doubt the settled order of things.

In a socio-cultural environment where the moral norms are perceived as not related to everyday practices, it is typical to justify one's actions by such phrases as "everyone does so", "this is life", "all world is doing like this". The absence or inefficiency of ethics infrastructure helps to continue with such explanations in case of various shortcomings: "It's ok, nothing happened, no breach of legal acts". Adhering only on the legal regulation assists further prevalence of anomies or socially unacceptable phenomena in the society and academia as well, it serves as a basis of justification to reject naturally evolving ethical dilemmas, to silence one's remorse.

The ultimate respect for rules and regulations is achieved not by prescribing, dictating and preaching, but by offering relevant factors (clearly defined values or virtues) according which to reconstruct social behaviours. It is the primary function of both legal and ethical rules, a cause forming respect to it, its authority. The process of ethics institutionalization interrupts the situation where breaking the laws or rules is taken for granted. It is achieved by establishing an explicit normative discourse on socially desirable behaviours compatible with interests and expectations of other individuals and society as a whole and by introducing the processes and procedures enacting and supporting this normative discourse.

The organizational (professional) discourse plays a significant role in fighting the misconduct. If this discourse maintains clearly critical, intolerant attitude towards research misconduct (by emphasizing the criteria of being "cool" or "successful"), it works as a prevention system against the academic shortcomings. Then each member of an academic institution is perfectly aware what is the standard or code of professional behaviour expected from him and what awaits him or her in case of breaching this code. First and immediate negative consequence in case of a violation is a loss of respect from your colleagues, your profession. It is a natural reaction if research integrity is established as an organizational norm in an academic institution. The depreciating opinion of colleagues or profession becomes an effective sanction. Ethics assists to activating the honour mechanism in academia as the most efficient self-regulatory tool.

The lawsuit analyzed in this article demonstrated that the University was not exercising its autonomy at its full length and did not benefit from the system of ethical self-regulation, so that plagiarism and other cases of research misconduct could be resolved within the academic institution, without interference of outer agents (mass media or the courts). Organizations naturally become aware of a need for such

institutional systems and tools after a pressure from society. In this case, the outer pressure was too weak (i.e. the socio-cultural environment was too accustomed to total moral indifference), so that the University could continue without resolving the case of plagiarism for ten years. Only the quixotic efforts of a single individual concerned with truth and morale led to the resolution of plagiarism scandal after more than a decade. The plagiarism scandal, becoming public, severely damaged the reputation of the University. It was the unmanaged risk, i.e. one more price to pay for not using ethics tools to resolving research misconduct inside the University.

5 Conclusions

The case study of the plagiarism lawsuit affirms the total predominance of legal regulation over the ethical one in minds of a significant part of the academic community as well as legal bodies. Several contradicting attitudes towards research ethics were represented by the members of the same academic community (even the same academic institution): 1) the apathetic attitude (the University), 2) the nihilistic attitude (the plagiarist), and 3) the concerned attitude (the author). The latter attitude is the rarest and most difficult way to undertake for an individual researcher in this academic community, as showed the development of the plagiarism scandal. Academic institutions still are not able to self-regulate through ethics infrastructure, and cynical attitude continues to prevail. Even the “elite” (highest academic ranks) of society spread such views, so it is not surprising that high standards of professional honour can’t become the norm of any professional activity.

The described discussions on plagiarism in the court hearings revealed that the principle of academic integrity has only recently entered the academic normative discourse of Lithuanian academic institutions. As it happened so belatedly, the academic integrity is not yet established as a norm of academic institutions.

Natural moral evolution of society is a long process, and the wider and more efficient institutionalization of ethics in academic institutions is straighter and shorter way to achieving research integrity *de facto*. Consistent introduction of ethics infrastructure leads to the value of compliance, comprising all the regulations applied to particular field of activity (legal acts, administrative regulations, standards of professionalism, ethical norms), i.e. implies the coherent unity of legal and ethical principles (instead of isolation or contradiction between them). The efficiently used ethics infrastructure enables academic institutions to cover and manage those intermediate spheres that are not or could not be regulated by relevant legal norms. These intermediate gaps between law and ethics need to be regulated for the sake of the quality of any professional activity, as well as for the public interest. And the ethics tools are best suitable for meeting this goal.

The findings of this case study revealed that in some academic communities it is a norm to close your eyes to the facts of plagiarism or any other kind of misconduct. Individual and institutional avoidance to raise the issue of plagiarism means that it is not viewed as a breach of their rights or norms of research ethics. It may be called a distorted conception of honour in research. This misconduct case as an example of such distorted conception of honour, as the authors hope, should help to raise the awareness

of academic communities and institutions on risks brought by the ignorance towards plagiarism issue.

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PLAGIARISM IN HIGHER PROFESSIONAL EDUCATION IN FLANDERS: A LEGAL PERSPECTIVE

Karen Weis

Abstract: In the present contribution, plagiarism in higher education institutions (HEIs) in Flanders will be approached from a legal perspective. The main objective is to sketch to what extent Flemish HEIs consider plagiarism as an important issue and create an overview of how it is dealt with.

The following research questions will be addressed:

- How do institutions of higher education define plagiarism in their respective regulations?
- Which sanctions and procedural rules are applicable when a case of plagiarism is discovered at a Flemish HEI?
- How the administrative court on student matters assesses the policy of HEIs on plagiarism?

Those research questions will be tackled on the basis of literature studies of legislation, jurisprudence and legal doctrine. First, the European and national laws on plagiarism will be studied. Second, the translation of these rules into the institutional regulations of Flemish HEIs (definitions, procedure and sanctions) will be investigated.¹ Third, the legal interpretation of plagiarism by Council for the settlement of disputes on study progress decisions and the assessment of concrete cases by HEIs of plagiarism, will be studied.

By considering plagiarism from a regulatory perspective, this study stresses the importance of developing a comprehensive and coherent network of legal provisions as to ascertain that plagiarism is dealt with in a similar manner in every HEI.

Key words: Plagiarism – legislative framework – exam regulations – definitions – procedure – sanctions – case law

1 Plagiarism in the framework of intellectual property

There is no statutory definition of the concept “plagiarism”, nor has a European or national (Belgian) court defined the term. This is remarkable, as the notion is used both in national, European and international legislation and jurisprudence on a regular basis.

In legal doctrine, plagiarism is defined as “*intentionally taking the (literary) property of another without attribution and passing it off as one’s own, having failed to add anything of value to the copied material and having reaped from its use as an unearned benefit*”.² Plagiarism does not limit itself to the copying of the text solely (such as copyright laws), but also the copying of the ideas that lie behind this text without referral to the original source.³ In that sense, plagiarism is closely related to copyright laws, though a case of plagiarism does not always imply a violation of copyright and vice versa.⁴

¹Some of these regulations were translated in English by the HEIs, others were translated by the author.

²L. STEARNS, “Plagiarism, process, property, and the Law”, *California Law Review* 1992, vol. 80, 516–517.

³S. McLEEMEE, “What is plagiarism”, *The Chronicle of Higher Education* 2004, vol. 51, 17.

⁴Art. XI. 189 § 1 Wetboek van economisch recht, *BS* 29 maart 2013.

Copyright laws only form a small part of the whole legal framework concerning intellectual property. Other legal (sub) domains concern patents, design rights and trademarks, though this paper will solely focus on the impact of plagiarism in written assignments (as this is the most apparent form of plagiarism in HEIs).⁵

The legal framework concerning copyright in Belgium consists of legal sources of both international, European and national level.⁶ With regards to plagiarism, article XI.189 of the Belgian Code of Economic Law is of relevance.⁷ This article contains the right to quote from a work that was made public, but only for the purpose of criticism, polemics, review, *education* or in the context of *scientific work*, on the condition that this citation is carried out in a way that is compatible with the fair professional practice standards and only if the aim warrants this quotation. If possible, according to the law, the quotation must always “*mention the source and the author’s name*”.

A violation of this “right to quote” thus exists when:

1. the work that was quoted was not made public in a lawful manner;
2. the quotation was not done for the purpose of criticism, polemics, review, education or scientific work;
3. the way the work was quoted, is not in accordance with the fair professional practice standards and/or the aim is not in proportion with the quotation or;
4. source and author were not mentioned, although the source (and/or author) were known to the writer.⁸

In case one of the conditions mentioned above is not fulfilled, the author violating the right to quote, is punishable and the original author can request punitive damages in court. This has happened in Belgium, for example when the quotation was made with a commercial aim⁹ or in a case where the citation was disproportionately long (31 pages).¹⁰

If we think of plagiarism in an academic context, it is in most cases the fourth or third issue of the list above that arises. This also corresponds to the definition of plagiarism mentioned above (*. . . passing it off as one’s own . . .*). Plagiarism committed in an educational context has never led to a punitive damages case before the Belgian courts. The lack of disclosure of papers made in the context of higher education explains this. Nevertheless, institutes for higher education can sanction students that commit plagiarism in the framework of the regulations they adopt on the rights and duties of students. It is in this framework that this paper studies the attitude of Flemish

⁵A. KUR & T. DREIER, *European intellectual property law*, Cheltenham, Edward Elgar, 2013, 3.

⁶For an overview of the different sources of copyright laws in Belgium: see D. VOORHOOF & K. VAN DER PERRE, *Handboek auteursrecht. Editie 2013-2014*, Gent, Academia Press, 2013.

⁷This provision was introduced in the Belgian law on copyright of 1994 and Directive 2001/29/EG of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society only introduced minor changes to this provision (see M. JANSSENS, “De uitzonderingen op het auteursrecht anno 2005 – een eerste analyse”, *AM* 2005, afl. 5, 486.

⁸F. GOTZEN & M. JANSSENS, *Wegwijs in het intellectueel eigendomsrecht*, Brugge, Vanden Broele, 2009, 41-42 and L. VAN BUNNEN, “Le statut des citations en droit intellectuel”, *ICIP* 2012, 714.

⁹Antwerpen 25 juni 2007, *AM* 2007, afl. 5, 461.

¹⁰F. GOTZEN & M. JANSSENS, *Wegwijs in het intellectueel eigendomsrecht*, Brugge, Vanden Broele, 2009, 42.

HEIs towards plagiarism committed by their students. Before we start this analysis, it is however necessary to provide a quick overview of the Flemish higher education landscape.

2 The Flemish higher education landscape

Higher Education in Flanders is offered by universities and by university colleges. Universities offer academic Bachelor-Master programs, Advanced Master and PhD programmes. University colleges offer professional Bachelor programs.¹¹ Universities and university colleges are affiliated to each other in the framework of a “university associations”. These are strategic partnerships between one university and at least one university college.

There are 5 university associations in Flanders today:

- University of Leuven association – consisting of 6 HEIs: KU Leuven, LUCA School of Arts, Odisee, Thomas More, UC Leuven Limburg (UCLL) and Vives;
- University of Ghent association – consisting of 4 HEIs: UGent, Arteveldehogeschool, HoGent and Howest;
- University of Antwerp association – consisting of 4 HEIs: UAntwerpen, Artesis Plantijn Hogeschool, Hogere Zeevaartschool and Karel de Grote-Hogeschool (KdG);
- University of Brussels association – consisting of 2 HEIs: Vrije Universiteit Brussel (VUB) and Erasmus Hogeschool;
- University of Hasselt association – consisting of 2 HEIs: UHasselt and PXL.¹²

In the Belgian federal system, the Flemish legislative and executive authorities are competent to regulate topics regarding education for the whole Flemish Community and HEIs located in this part of Belgium.¹³ The process of association was also instigated by this Flemish community in 2003 in the aftermath of the Bologna process.¹⁴ The main goal of these affiliations of HEIs in Flanders was the rationalization of higher education in Flanders, while creating a stable context for cooperation in which the synergy between the institutions could grow successfully.¹⁵ In this paper, we will also try to assess whether or not this process of association influences the policies and rules on plagiarism.

¹¹DEPARTMENT OF EDUCATION AND TRAINING, “Reform of the organizational structure of Higher Education in Flanders and the impact on European/international cooperation”, <http://www.ond.vlaanderen.be/hogeronderwijs/>.

¹²VLAAMSE UNIVERSITEITEN & HOGESCHOLENRAAD, “Partners”, <http://www.vluhr.be/p157>.

¹³Article 24 Belgian Constitution.

¹⁴Decr. VI. 4 april 2003 betreffende de herstructurering van het hoger onderwijs in Vlaanderen, *BS* 14 augustus 2003.

¹⁵Ontwerp van decreet betreffende de herstructurering van het hoger onderwijs in Vlaanderen, *Parl. St.* VI. Parl. 2002-03, nr. 1571/1, 24.

3 Plagiarism in the regulations of Flemish higher education institutions

1) *The Educational and Examination Regulations of Flemish HEIs*

The decision of the Flemish Government of 11 October 2013 on the introduction of the Flemish Higher Education Code contains several articles on the creation of Educational and Examination Regulations by Flemish higher education institutions.¹⁶ It is in the framework of these regulations that HEIs have to determine – within the legal boundaries created by the Flemish community – how they will regulate certain topics related to education and exams in their institution.¹⁷ These regulations should be made public before the beginning of the new academic year and should be easily available for students. They are binding upon students from the moment they have enrolled, and also apply to the school and its personnel. They can be created individually by HEIs, though in the framework of some university associations, cooperation when writing these regulations is becoming more and more usual.¹⁸

Article II.221 of the Flemish Higher Education Code regulates the content of the *Education Regulation* that has to be adopted by each HEI before the beginning of the new academic year. It determines that each Education Regulation should at least contain a number of provisions on (for example) the goals of each educational program offered by the HEI, rules regarding the enrolment of students, the conditions on the basis of which exemptions can be attributed to students, the organization of the school year etc. *Exam regulations*, on the other hand, should contain rules regarding the different evaluation moments that take place in Flemish HEIs.¹⁹ Article II.222 of the Code for example determines that Exam Regulations should comprise amongst others rules on the way exams are held, in which periods they take place, the way results are made public and how exam commissions are to be organized, etc. It should also contain a provision on the appeal against decisions of exam commissions.

These Exam Regulations are of interest for the discussion on how plagiarism is dealt with in Flemish HEIs. Article II.221, 11° of the Code namely explicitly determines that a HEI should, in its Exam Regulation, foresee in a provision on the way it deals with *irregularities* taking place during exams. The concept of “irregularities” is not defined in the Flemish Higher Education Code. This creates the possibility for HEIs to write and adopt their Exam Regulations in a way they deem it necessary to tackle each possible problem, without any limitation to what can be seen as an irregularity and what not. In practice, we see that plagiarism is considered in most HEIs as such an “irregularity”.

In the following chapter, we will discuss how plagiarism is regulated in the different Exam Regulations of the Flemish HEIs. We will focus on the definition of the concept,

¹⁶BVR 11 oktober 2013 tot codificatie van de decretale bepalingen betreffende het hoger onderwijs, BS 27 februari 2014 (hereafter: Flemish Higher Education Code).

¹⁷Article II.220 Flemish Higher Education Code.

¹⁸This will become apparent when studying the provisions on plagiarism of the Exam regulations of the Flemish HEIs.

¹⁹Article I.3, 24° of the Flemish Higher Education Code namely defines exam as “every evaluation in the framework of course of the extent to which the student has mastered the corresponding competences”. It is thus broader than for example, the taking of a written or oral exam and can also comprise the evaluation of written papers or finished exercises.

the procedures to be followed when one discovers a case of plagiarism and the sanctions that can be given.

2) *Plagiarism in the Exam Regulations of Flemish HEIs*

1. *Definition of the term “irregularity”*

In the majority of the Exam Regulations adopted by Flemish HEIs, a definition of the broad term “irregularity” was inserted. These definitions however vary. Some try to give a real definition, while others only sum up different situations that can qualify as an irregularity. The different definitions will be discussed within the framework of the respective university associations, as similarities and differences can be discussed more easily within the framework of associated HEIs.

a) *Leuven University Association*

The definition of the term irregularity is more or less identical in all HEIs member of the Leuven University Association. In the regulation of KU Leuven, fraud is defined as “*any conduct on the part of a student during an examination in an attempt to make it completely or partially impossible to arrive at an accurate assessment of his own knowledge and skills or those of other students*”. Plagiarism is always explicitly mentioned as an example of such an irregularity.²⁰ LUCA²¹, Vives²², Thomas More²³ and Odisee²⁴ have integrated this exact provision in their respective regulations.

In the Exam Regulation of UCLL, an irregularity is defined as “*any student behaviour related to an assessment by which said student entirely or partially impedes or tries to impede a fair judgment of knowledge, understanding and/or skills of oneself or of other students*”.²⁵ Although the wording is different, in essence the same provision is envisaged. Within this association, it is thus possible to state that there is a large similarity between the HEIs.

b) *Ghent University Association*

The regulations of UGent include several definitions, but no definition of irregularity or an equivalent term, such as fraud, are provided. Article 79 § 2 of the UGent Exam Regulation however clearly states, as an example, that committing plagiarism is considered a form of fraud.²⁶ This is the only explicitly mentioned example for the term “fraud” in this regulation.

HoGent and Howest did not include an explanation of the term in their list of definitions, but – in case of HoGent – different examples of irregularity are enumerated. Article 60 § 1 of the regulation namely determines that every kind of irregularity

²⁰Art. 84 § 1 Regulations on Education and Examinations KU Leuven.

²¹Art. 84 Education and Examination Regulation LUCA.

²²Art. 49 Education and Examination Regulation Vives.

²³Art. 72 Education and Examination Regulation Thomas More.

²⁴Art. 83 Education and Examination Regulation Odisee.

²⁵Art. 128 Education and Examination Regulation UCLL.

²⁶Art. 79 § 2 Education and Examination Code UGent.

will be brought before the examination commission. These irregularities can include “*attempted fraud, assistance to fraud, inciting fraud which is recorded with regard to an exam, continuous assessment, internship*”.²⁷ The third paragraph of the same article puts forward two specific situations that will be seen as fraud: the use of mobile phones and PDA’s during exams and plagiarizing. Plagiarism is thus explicitly mentioned as an irregularity in the regulation of HoGent. In HoWest, article 68 of the Education and Examination code also gives examples of what can lead to the assessment of an irregularity by an examination commission: “*plagiarism, fraud or any other type of deception*”.²⁸ There is no general definition for fraud.

The Educational & Examregulation of Arteveldehogeschool does not include a list of definitions of legal terms. Definitions are spread out throughout the whole regulation. Article 95, titled definition of irregularities describes irregularity as “*any act, any behaviour or any situation that disrupts the normal course of the assessment or prevents the assessor from making an objective assessment of the competences of the student is an irregularity*”. This more or less has the same intent as the provisions of the Exam Regulations of the HEIs from the Leuven University Association. This Artevelde-article however also clearly states that “*it does not have to be proven that malicious intent has been involved*”.²⁹ This last sentence is unique in Flanders and will, without a doubt, be useful in discussions with students regarding the unintentional character of the committed irregularity.

c) Antwerp University Association

Within this association, there is again diversity when it comes to the definition of the concept of fraud or irregularity. The University of Antwerp defines fraud as “*any deceit during the taking of an exam, as well as any other deliberate irregularities that may influence the result attained by the examinee*”.³⁰ Article 18.2.1 of the Exam Regulation subsequently determines that the possession with the possibility of use of tools with which fraud maybe committed (such as mobile, iPod, etc.) can also be considered as fraud, even if such an infringement is recorded after the event. In this document, plagiarism is mentioned as an example of fraud (art. 18.2.2). At UAntwerpen, one can also be sanctioned when one has contributed to committing irregularities.³¹

The other three institutions define fraud in a manner that can be best compared to the definition put forward by the University of Leuven association. Artesis-Plantijn defines it as “*any conduct on the part of a student during an examination or the organization thereof in an attempt to make it completely or partially impossible to arrive at an accurate assessment of his own knowledge, skills and competences or those of other students*”.³² Karel de Grote hogeschool (KdG) defines irregularity as “*any behaviour of a*

²⁷Art. 60 § 1 Education and Examination Code HoGent.

²⁸Art. 68 Education and Examination Code HoWest.

²⁹Art. 95 Study Contract Artevelde Hogeschool.

³⁰Article 18.2 Education and Examination Regulation of the University of Antwerp.

³¹Art. 18.5.3. Education and Examination Regulation of the University of Antwerp.

³²This HEI has individual regulations for each department, though a high number of provisions are identical in each regulation. See article 20.1 Education and Examination Regulations of Artesis-Plantijn Hogeschool.

student resulting from an evaluation moment in which making an objective assessment of his skills - or those of other students - can be partially or completely impossible". Subsequently, some examples of irregularities are given: bringing and/or use of unauthorized aids such as course materials, crib sheets, mobile phones, PDA's, flash drives, MP3 players, iPods and calculators; misuse of the exam tool or any form of oral, written, or electronic communication, unless it forms part of the examination procedure.³³ The Hoge Zeevaartschool (Antwerp Maritime Academy) defines fraud or irregularity as *"any conduct on the part of a student during an examination as to make it completely or partially impossible to arrive at an accurate assessment of his own knowledge, skills and competences or those of other students, even when the fraud was recorded after the event"*.³⁴ As examples the presence of unauthorized aids in the exam room (course materials, non-registered calculators, electronic devices like cell phones, notebooks, palmtops, smartwatches, ...) are given.

d) *Brussels University Association*

Erasmus Hogeschool does not define fraud, nor irregularity in its Exam regulation. The chapter titled "irregularities" immediately determines the procedure that needs to be followed in case an irregularity is committed.³⁵

The Vrije Universiteit Brussel defines irregularity in manner similar to the manner used by the University of Leuven Association. Article 118 § 2 of the Teaching and Examination regulation describe irregularity as *"any behaviour by a student in an examination setting which renders, or attempts to render, partially or wholly impossible a proper assessment of the student's own knowledge, understanding and/or skills or those of other students"*. Plagiarism is also considered to be an irregularity in the context of this article.³⁶

e) *Hasselt University Association*

UHasselt and PXL use very similar definitions for irregularity. UHasselt describes it as *"any kind of behaviour of a student that makes or intends to make it entirely or partly impossible to form any correct judgement about his own or other students' acquired competences within the scope of an examination/evaluation"*. Plagiarism and the possession of forbidden tools that could be used during an examination/evaluation, are also explicitly considered irregularities.³⁷

In the exam regulation of PXL, the words knowledge and understanding are added to the above mentioned sentence (after the word "competences"). The same article also explicitly mentions that such irregularities can be established either before or after an exam or even after deliberations.³⁸ Plagiarism is explicitly mentioned as a specific irregularity. The use of tools is not explicitly mentioned.

³³Article 4.3 University College Education and Examination Regulations KdG.

³⁴Article 73 Education and Examination Regulations Zeevaartschool.

³⁵Art. 23-24 Education and examination regulations Erasmus Hogeschool.

³⁶Art. 118 § 2 Teaching and Examination regulation Vrije Universiteit Brussel.

³⁷Art. 9.1 Education and examination regulations UHasselt.

³⁸Article 29 Examination regulations PXL.

f) *Conclusion: the definition of the concept “irregularity”*

After studying the different provisions on the definition of the term “irregularity” it becomes apparent that there is a large diversity in the Flemish HEI landscape as how to describe this concept. Some HEIs use the word “fraud” instead of “irregularity” and one even uses both in one Regulation. As to the exact definition, a majority of HEIs defines the concept as behaviour of a student that makes or intends to make it entirely or partly impossible during an exam to form any correct judgment about the students’ own or other students’ acquired knowledge, skills, understanding and competences. The wording may vary between institutions, but the main goal is identical: create a definition that is very wide as to comprise as many cases of irregularities as possible under the definition. Some HEIs find it necessary to explicitly categorize some acts as an irregularity or fraud. Strictly speaking this should not be necessary when the definition is broad enough. Nevertheless it is useful to explicitly mention the possession of certain tools, as – in practice – it is possible to discuss whether or not the sole possession (and thus not the use) of tools such as cell phones and smart watches could be seen as an irregularity in the framework of the definition mentioned above. Not providing a definition of the term “irregularity” is – legally speaking – dangerous. It is better that this concept is defined, to avoid legal discussions in case an irregularity is ascertained. Last, the explicit mentioning of the lack of necessity for a proof of malicious intent by Arteveldehogeschool can be seen as a “best practice”. This also will avoid (legal) discussions with students.

This table presents the main elements of the different definitions of fraud/irregularity by Flemish HEIs.

2. *Definition of the term “plagiarism”*

a) *Leuven University Association*

The definition of the concept “plagiarism” is practically identical in all HEIs member of the Leuven University Association. Five out of six institutions state that plagiarism is “*a form of examination fraud that consists of the action of copying the work (ideas, texts, structures, images, plans. . .) of someone else without adequate acknowledgement, in an identical form or slightly changed.* The copying of one’s own work is considered examination fraud (and not plagiarism).³⁹ UCLL defines plagiarism as “*an irregularity which consists of copying (entirely or partially) other people’s work (ideas, texts, structures, images, plans...) literally or in a slightly modified manner without adequately citing the source*”.⁴⁰ Although the wording is slightly different, the idea is identical to the definition used by the other five institutions.

³⁹Art. 84 § 1 Regulations on Education and Examinations KULeuven, art. 84 Education and Examination Regulation LUCA, art. 49 Education and Examination Regulation Vives, art. 72 Education and Examination Regulation Thomas More, art. 83 Education and Examination Regulation Odisee.

⁴⁰Art. 128 Education and Examination Regulation UCLL.

Table 1
Definition of fraud/irregularity

	Irregularity	Fraud	Conduct which makes it impossible to make an accurate assessment	Own skills/knowledge/competences	Skills/knowledge/competences other students	Deceit/irregularities that influence results	Plagiarism = fraud/irregularity	Use of forbidden tools	Malicious intent is not necessary	Can be ascertained even after the exam
Leuven Association										
KULeuven		x	x	x	x		x			x
LUCA		x	x	x	x		x			x
Vives		x	x	x	x		x			
Thomas More		x	x	x	x		x			
Odisee		x	x	x	x		x			x
UCLL	x		x	x	x		x			
Ghent Association										
UGent		x					x			x
HoGent		x					x	x		
Artevelde	x		x	x			x			
HoWest		x					x	x		
Antwerp Association										
UAntwerpen		x				x	x	x	x	x
KdG	x		x	x	x		x	x		
Artesis Plantijn		x	x	x	x		x			
Zeevaartschool	x	x	x	x	x		x	x		x
Brussels Association										
VUB	x		x	x	x		x			
Erasmus	x									x
Hasselt Association										
UHasselt	x		x	x	x		x	x		x
PXL	x	x	x	x	x		x			x

b) Ghent University Association

The HEIs that are member of the Ghent University Association all use their own definition of plagiarism. Three out of four definitions are rather long. UGent for example defines plagiarism as “*the presentation of (parts of) a source as original and your own, without adding any acknowledgements. It can relate to different forms of production, such as texts (written, oral), images (photographs, film, graphs, diagrams, figures, etc), music, databases, a structure, a line of reasoning, or ideas*”.⁴¹ More or less along the same line, HoGent describes the concept as “*the presentation of (parts of) a source as original and your own, without adding any acknowledgements. It can relate to different forms of production, amongst other: the copying or summarizing and/or translation of small or large parts of texts, figures, tables, numbers, photographs, film, data, ideas, a line of reasoning etc. without clear and correct acknowledgment and without incorporation of the citation in one’s own work*”.⁴² Art. 79 § 2 also states that for each study programme, the respective Examination Boards can complete or specify this basic definition of “plagiarism”. This information is to be communicated to the students taking the study programme in question.⁴³

Artevelde Hogeschool also uses a rather long definition, but this one is very different from the two mentioned above. In Part 7 of its regulations, it defines plagiarism as “*acquiring all or part of someone else’s work without having properly made reference to this. Failure to comply with the agreements established in the study contract in connection with the mention of the original source according to the APA standard is considered by the university college as a form of plagiarism. This applies to all types of sources (texts, images, music, databases,...). Also the use of translations and paraphrases without adequate acknowledgement according to the APA standard falls under plagiarism*”.⁴⁴

HoWest only uses a short definition. Article 2 defines plagiarism as “*each imitation of another author’s work (ideas, texts, structures, illustrations, plans. . .); identically or slightly altered without the indication of a quote and/or without adequately crediting the source*”. This is rather limited definition of plagiarism, especially when compared to those mentioned above of the same university association.

c) Antwerp University Association

Within the framework of the Antwerp University association it is surprising to find that two out of four institutions only work with examples of what could constitute plagiarism.

The UAntwerpen for example states that plagiarism is committed when, amongst others, the student is guilty of (a) literally copying, also in translation, a text or the structure of a text, tables, data etc. without crediting the source; (b) paraphrasing a substantial part of the contents or the tenor of a text (e.g. reasoning, argumentation), without crediting the source (both published and unpublished sources); (c) letting

⁴¹Section II (definitions) Education and Examination Code UGent.

⁴²Section I (definitions) Education and Examination Code HoGent.

⁴³Art. 79 § 2 Education and Examination Code UGent.

⁴⁴Part 7 (Education Lexicon) Study Contract Artevelde Hogeschool.

someone else write a text or a substantial part of it (“ghost writing”), which may appear amongst others from the oral explanation or defence by the student.⁴⁵

KdG defines plagiarism as the “*acquisition of other people’s work in identical or slightly modified form, without adequate acknowledgment*”. Next to this definition, article 4.3 of the Exam Regulation also mentions that the university college also includes as plagiarism (1) submission of purchased or adapted pieces as their own work; (2) reuse of own work as new work; (3) simulation or falsification of (research) data.⁴⁶

Both Artesis – Plantijn and the Zeevaartschool - use very short definitions, respectively “*the acquisition of other people’s work without adequate acknowledgment*”⁴⁷ and “*without clear acknowledgment, the copying (whole or partly) of data when making written assignments or projects*”.⁴⁸ In their essence, these definitions however try to reach the same goal as the definitions mentioned above, by KdG.

d) Brussels University Association

Erasmus Hogeschool does not define plagiarism in its Exam regulation. This is the only HEI that does not provide such a definition. Vrije Universiteit Brussel on the other hand defines the concept as “*the use of other people’s phrasing, adapted or otherwise, without careful acknowledgement of sources as well as any form of fraud that is a violation of scientific integrity*”.⁴⁹ This mentioning of “scientific integrity” is striking. One could ask whether or not for example the falsification of research data could lead to an assessment as plagiarism under this definition.

e) Hasselt University Association

UHasselt defines plagiarism as “*copying or translating the work of others in either identical or slightly altered form, without crediting the source*”. Getting a third party to draw up a text, is also considered to be plagiarism.⁵⁰ PXL reuses the definition of UHasselt, but adds the following sentence after “crediting the source”: “*(...) while making f.e. written assignments such as bachelor papers or projects*”.⁵¹ The provision on the help of a third party was not introduced in the PXL regulation.

f) Conclusion: the definition of “plagiarism”

Plagiarism is not defined in a streamlined manner in Flanders. There are certain aspects of plagiarism that are put forward in almost each Exam Regulation of every HEI, but other aspects are only mentioned in one or two regulations.

The aspects on which almost all HEIs agree is the fact that plagiarism involves the copying (or presenting) of the work of another without adapting (or only slightly changing) it, without adequate acknowledgement for the original author(s). Most

⁴⁵Art. 18.2.2 Education and Examination Regulation of the University of Antwerp.

⁴⁶Art. 4.3. University College Education and Examination Regulations KdG.

⁴⁷Art. 23 Education and Examination Regulations of Artesis-Plantijn Hogeschool.

⁴⁸Art. 73 § 2 Education and Examination Regulations Zeevaartschool.

⁴⁹Art. 118 § 2 Teaching and Examination regulation Vrije Universiteit Brussel.

⁵⁰Art. 9.1.2. Education and examination regulations UHasselt.

⁵¹Art. 29 Examination regulations PXL.

Exam Regulations also define – as examples – which kinds of information can be plagiarized: ideas, texts, structures, images, plans, photographs, film, graphs, diagrams, figures, music, databases, reasoning, etc. The viewpoint as to the subject of possible plagiarism is thus broad in Flanders and surely does not only focus on literature.

Some HEIs also broaden the traditional definition of plagiarism beyond the traditional meaning of plagiarism:

- Paraphrasing without adequate acknowledgment
- Translating without adequate acknowledgment
- Ghostwriting
- Re-use of own work
- Simulation/falsification of research data
- Any other violation of scientific integrity

In the overview (tab. 2), the different components of the definition of plagiarism in each HEI in Flanders can be found.

In the subsequent chapter, the procedural rules regarding the assessment of irregularities committed during an exam (including plagiarism), will be compared. This will provide an overview of how Flemish HEIs actually decide upon sanctions for plagiarism.

3. Procedural rules regarding the assessment of irregularities during exams

a) Leuven University Association

Within the framework of the Leuven University Association, there is – again – a large similarity between the different exam regulations in regards to the procedure that needs to be followed when an irregularity is committed.⁵²

First, in all “Leuven HEIs”, the regulations determine that after seizure of any incriminating evidence and the part of the examination that was already completed, the student in question may continue his assessment and examination session. This includes the examination at which the irregular conduct was established. The seized evidence, in almost all HEIs of the Leuven association, is then transferred to the chairman of the examination committee (though not at UCLL, where the ombudsperson receives the evidence). The notification of the irregularity and the transfer of the evidence should happen as soon as possible.

In the following phase, the procedure is slightly differently regulated in the HEIs connected to the Leuven University Association, albeit only in the clearness of the wording. In most of the HEIs, it is a limited examination committee (consisting of fewer members than the regular committee) that hears the examiner and the student and examines the seriousness of the infringement. In case of plagiarism, all Exam Regulations mention that an expert from outside the commission can be involved in

⁵²Art. 85 Regulations on Education and Examinations KULeuven, art. 85 Education and Examination Regulation LUCA, art. 50 Education and Examination Regulation Vives, art. 73 Education and Examination Regulation Thomas More, art. 84 Education and Examination Regulation Odisee, art. 129 Education and Examination Regulation UCLL.

the hearing. At UCLL, it is however again the ombudsperson that hears the student and the examiner first, Afterwards the limited examination commission can do the same.⁵³

In the regulations of KULeuven, LUCA and Odisee the exact role of this limited Examination commission is not very clear. It is only mentioned that in case of fraud, the limited commission “*prepares the decisions by the examination committee about this*”.⁵⁴ When compared with VIVES, for example – where it is clearly stated that the limited commission *can* write a proposal for a decision regarding the irregularity – the exam regulation of these three HEIs remains very vague as to the role of the limited commission.⁵⁵ There is nevertheless a large chance that the limited commission plays same role, though it is not explicitly mentioned in the Exam Regulation. At Thomas More, it is the task of the limited commission to determine (after hearing everyone involved) whether or not the regular examination committee should meet (within 4 weeks).⁵⁶ At UCCL, the limited board of examiners will prepare a proposal of decision.⁵⁷ In every HEI, the limited commission can decide to convene the examination committee ahead of the date fixed

In all HEIs, a regular examination commission (linked to the study programme) is to decide upon the consequences of the committed irregularity. This is clearly the case in VIVES, Thomas More and UCLL. In case of KULeuven, LUCA and Odisee, this is also the case, but is mentioned in other articles of the regulation (and not those on procedure).⁵⁸

At KULeuven, LUCA and Odisee, one severe sanction, the exclusion of the student from a programme of study, with or without the loss of the right to register, can only become final after approval by an ad hoc commission on fraud.⁵⁹ This is done to ensure that for the whole HEI the strictest sanctions are applied for similar cases.

The appeals window opens after notification of the exam result by the faculty.

b) Ghent University Association

Within the Ghent University Association, there is a large variety when it comes to procedure. The University of Ghent for example has a very detailed provision on the procedural rules to be followed when confronted with a case of fraud, whereas – for example – HoGent only has a very short article. Artevelde and HoWest have a medium

⁵³Art. 129 Education and Examination Regulation UCLL.

⁵⁴Art. 70 Regulations on Education and Examinations KULeuven, art. 70 Education and Examination Regulation LUCA, art. 69 Education and Examination Regulation Odisee.

⁵⁵Art. 50 Education and Examination Regulation Vives.

⁵⁶Art. 73 Education and Examination Regulation Thomas More

⁵⁷Art. 129 Education and Examination Regulation UCLL.

⁵⁸Art. 71 Regulations on Education and Examinations KULeuven, art. 71 Education and Examination Regulation LUCA, art. 70 Education and Examination Regulation Odisee.

⁵⁹This commission consists of the Vice-Rector of Education Policy, three representatives of faculties considered to be experts on the matter and three chairpersons of examination committees (respectively one for each group), a legal expert and a staff officer of the Educational Policy Unit acting as secretary. Art. 86 § 2 Regulations on Education and Examinations KULeuven, art. 86 § 2 Education and Examination Regulation LUCA, art.85 § 2 Education and Examination Regulation Odisee.

detailed provision, but what is very striking is that all four HEIs have very differing procedural rules.⁶⁰

At the UGent, when a student is suspected of committing an irregularity (including plagiarism) the examiner shall promptly notify the chair of the Examination Board (organised per study programme). The same goes for Artevelde and HoWest. At HoGent, this notification should be sent to the Dean.

At UGent, the examiner may immediately discontinue the on-going evaluation for this student, or s/he may give the student a new, blank exam copy.⁶¹ At HoGent, the examiner has the same choice (“he/she *may* discontinue”).⁶² At Artevelde, this possibility of continuing the exam is not regulated. The same applies to HoWest. In all HEIs of this association, the student may (at his/her own risk) continue to take the other exams of the same session.⁶³

There are no selected exam commissions in the HEIs of the UGent association. At UGent and Artevelde, it is this examination commission related to the study programme that decides upon the consequences of the irregularity.⁶⁴ At HoGent it is the dean that takes this decision.⁶⁵ In HoWest, it is the chairman of the examination board that decides, although in some cases the decision of the president needs to be ratified by the board.⁶⁶

Every Exam Regulation determines that the student needs to be heard (the UGent regulation is very detailed and even determines at which email address the student will receive his/her invitation). At UGent, the student can be represented by a legal adviser.⁶⁷ Strikingly, at Artevelde and HoWest, the student can be assisted by the ombudsman.⁶⁸ This is rather strange, as the ombudsman is an employee of the school.

At UGent, the examination board will convene as soon as possible after the hearing to arrive at a decision on the case in question.⁶⁹ The content of the report of this board and to whom it should be sent is also regulated in a very detailed manner in the Exam Regulation.⁷⁰ At Artevelde, it is also this examination board that decides upon the sanction. The meeting is called by the chairman, and it is also this chairman that prepares a preliminary report.⁷¹ This is not done by the chairman at UGent.

At HoGent it is the dean that decides upon the sanction for the irregularity. Strikingly, the Exam Regulation explicitly determines that “in case the dean determines that the accusation is unfounded, the exam in the framework of which the irregularity

⁶⁰Art. 79 Education and Examination Code UGent, art. 60 Education and Examination Code HoGent, art. 68 Education and Examination Code HoWest, art. 97 Study Contract Artevelde Hogeschool.

⁶¹Art 79 § 1 Education and Examination Code UGent.

⁶²Art. 60 § 2 Education and Examination Code HoGent.

⁶³Art 79 § 10 Education and Examination Code UGent; art. 60 § 2 Education and Examination Code HoGent. Art. 68 Education and Examination Code HoWest, art. 97 Study Contract Artevelde Hogeschool.

⁶⁴Art 79 § 3 Education and Examination Code UGent; art. 97 Study Contract Artevelde Hogeschool.

⁶⁵Art. 60 § 5 Education and Examination Code HoGent.

⁶⁶Art. 68 Education and Examination Code HoWest.

⁶⁷Art 79 § 4 Education and Examination Code UGent.

⁶⁸Art. 68 Education and Examination Code HoWest & art. 97 Study Contract Artevelde Hogeschool

⁶⁹Art 79 § 5 Education and Examination Code UGent.

⁷⁰Art 79 § 9 Education and Examination Code UGent.

⁷¹Art. 97 Study Contract Artevelde Hogeschool.

was ascertained, is resumed”.⁷² This implies that decisions are taken by the dean at the moment of the exam itself. Article 60 § 5 seems to confirm that, as that article states that “a decision regarding fraud can be taken at every moment”.

At HoWest, it is the president of the examination board, who, after having consulted with the examiner and/or observer involved, the respective student, the programme coordinator and/or ombudsman and/or examination board, takes a relevant decision and who communicates this in writing, motivated and dated, to the respective student.⁷³ Only a zero score as a result of an irregularity during an examination must be ratified by the examination board.

Appeal is possible from the moment the decision is communicated to the student

c) Antwerp University Association

Again, one can find a large variety in procedural rules within the framework of this association. Once evidence of fraud or plagiarism is found, the examiner should contact the chair and secretary of the examination board and the ombudsman (UAntwerpen)⁷⁴, the president of the Examination Commission (Artesis – Plantijn)⁷⁵, the ombudsman (KdG)⁷⁶ and the student administration (Zeevaartschool).⁷⁷ Both at KdG and the Zeevaartschool, the contacted authorities will alarm the president of their respective examination boards. In the Exam Regulation of KdG, “if necessary” is used for this contact. This implies that the ombudsperson has the competence to decide whether or not the facts that led to the notification could constitute fraud and thus lead to a procedure.⁷⁸

At the Zeevaartschool, the student that is caught committing fraud should immediately leave the exam room.⁷⁹ The UAntwerpen regulation mentions that the student may continue to take the exam during which the irregularity was observed.⁸⁰ In the Artesis-Plantijn exam regulation is explicitly determined that student will get a new copy of the exam.⁸¹ The KdG regulation writes that – if it does not undermine the correct assessment of the knowledge of the student – he/she can continue taking the exam.⁸² At the Zeevaartschool and UAntwerpen, the students can – at their own risk – take part in the other exams of the same session.⁸³ The two other HEIs do not mention this possibility, but also do not prohibit it.

The student has the right to be heard. At UAntwerpen, he/she has the right to be assisted by a person of choice.⁸⁴ At KdG, legal assistance is explicitly mentioned as a

⁷²Art. 60 § 2 Education and Examination Code HoGent

⁷³Art. 68 Education and Examination Code HoWest.

⁷⁴Art. 18.4 Education and Examination Regulation of the University of Antwerp.

⁷⁵Art. 20.2 Education and Examination Regulations of Artesis-Plantijn Hogeschool.

⁷⁶Art. 4.3 University College Education and Examination Regulations KdG.

⁷⁷Art. 76 Education and Examination Regulations Zeevaartschool.

⁷⁸Art. 4.3 University College Education and Examination Regulations KdG.

⁷⁹Art. 75 Education and Examination Regulations Zeevaartschool.

⁸⁰Art. 18.5.2 Education and Examination Regulation of the University of Antwerp.

⁸¹Art. 20.2 Education and Examination Regulations of Artesis-Plantijn Hogeschool.

⁸²Art. 4.3 University College Education and Examination Regulations KdG.

⁸³Art. 80 Education and Examination Regulations Zeevaartschool & art. 18.5 Education and Examination Regulation of the University of Antwerp.

⁸⁴Art. 18.6.1. Education and Examination Regulation of the University of Antwerp.

possibility.⁸⁵ At the Zeevaartschool, the student can be assisted by the ombudsperson. The student is heard by the president of the examination commission at Artesis-Plantijn⁸⁶, KdG⁸⁷ and Zeevaartschool.⁸⁸ At the UAntwerpen, the student will be heard by the fraud commission, a separate body within the faculty solely dealing with cases of fraud.⁸⁹

UAntwerpen is not the only HEI of the Antwerp University Association that works with a separate commission dealing with fraud: after hearing the student, the president of the examination board of Artesis-Plantijn will assemble the so called “examination fraud commission”.⁹⁰ In both institutions, fraud is thus not decided upon by the regular examination commission. At KdG the regular examination commission of the study program does decide upon the case of fraud. The meeting can even be held electronically when a physical meeting has no further value and the student does not wishes to be heard.⁹¹ At the Zeevaartschool, it is in principle the chairman of the examination commission that decides upon the case, though he/she can decide to assemble the whole commission if it is deemed necessary. There are no guidelines in the exam regulation as to determine in which cases this should be done.⁹²

The decision needs to be sent to the student. After this is done, the student can appeal against the decision.

d) Brussels University Association

At the Vrije Universiteit Brussel, it is the dean of the faculty that decides upon the disciplinary sanction when an irregularity is committed.⁹³ When an examiner or another individual with supervisory authority notes that a student is involved in irregular activities during an exam, they will inform the student accordingly and they may interrupt the current examination of the student in question, where applicable following confiscation of the contested material and previously produced copy.⁹⁴ The events must be reported to the Dean in writing without delay.⁹⁵ Before taking this decision, the Dean must hear the student (that can be assisted by a legal counsel) and if necessary – he/she will discuss the case with the Chairman of the Examination Board.⁹⁶ No clear guidelines are provided to determine which cases should be discussed with

⁸⁵Art. 4.3 3 University College Education and Examination Regulations KdG.

⁸⁶Art. 20.3 Education and Examination Regulations of Artesis-Plantijn Hogeschool.

⁸⁷Art. 4.3 University College Education and Examination Regulations KdG.

⁸⁸Art. 77 Education and Examination Regulations Zeevaartschool.

⁸⁹Art. 18.6.1 Education and Examination Regulation of the University of Antwerp. The faculty determines the composition of the fraud commission at the start of each academic year. The chair and the secretary of the examination board with which the student is registered are ex-officio members of the fraud commission.

⁹⁰Art. 20.3 Education and Examination Regulations of Artesis-Plantijn Hogeschool. This commission consists of three members of the regular examination commission that are not linked to the incident or their replacements. Other members are the president of the examination commission, the secretary and the ombuds (though these three members do not have a right to vote).

⁹¹Art. 4.3 University College Education and Examination Regulations KdG.

⁹²Art. 78 Education and Examination Regulations Zeevaartschool.

⁹³Art. 118 § 3 Teaching and Examination regulation Vrije Universiteit Brussel.

⁹⁴Art. 118 § 1 Teaching and Examination regulation Vrije Universiteit Brussel.

⁹⁵Art. 118 § 1 Teaching and Examination regulation Vrije Universiteit Brussel.

⁹⁶Art. 118 § 4 Teaching and Examination regulation Vrije Universiteit Brussel.

this Chairman. The student can – pending the decision of the Dean – still take part in the other exams of the same session.⁹⁷

At the Erasmus Hogeschool, irregularities committed during exams should be notified directly to the director of the department and the ombudsperson.⁹⁸ The director hears the student.⁹⁹ Decisions on disciplinary sanctions are taken by a departmental commission, different from the regular examination commission.¹⁰⁰ The student can continue to take his/her exams pending the decision of the commission.¹⁰¹

Appeal can be introduced after the decision was sent to the student.

e) Hasselt University Association

Both institutions from this association deal with irregularities in separate commissions that differ from the regular examination commissions. At UHasselt, the decision regarding the existence and consequences of the irregularity are taken by the Examination Board's Office.¹⁰² At PXL, it is the so called "progress commission" that is competent in these matters.¹⁰³ Only in cases of severe fraud, this commission can request that the whole progress commission (similar to an examination commission) decides upon the case. In other cases, a limited commission can decide.¹⁰⁴

When irregularities are found, the examiner has to report this to the chairman of the Examination Board (UHasselt)¹⁰⁵ or the chairman of the progress commission (PXL). The chairman will then notify the ombudsperson. The student can continue to take the exam in framework of which the irregularity was determined, after – for example – forbidden objects are seized. The student also has the right to continue taking other exams.¹⁰⁶

The chairman of the Examination Board's Office (UHasselt) or the president of the progress commission (PXL) will hear the parties involved.¹⁰⁷ Only in the exam regulation of UHasselt it is mentioned that the student can seek the help of a legal counsel.¹⁰⁸ The respective commissions can also hear the student if he/she requests this.

The Examination Board's Office (UHasselt) or the limited progress commission (PXL) decides upon the irregularity and its consequences.¹⁰⁹ UHasselt is the only

⁹⁷Art. 118 § 3 Teaching and Examination regulation Vrije Universiteit Brussel.

⁹⁸Art. 23 § 1 Teaching and Examination regulation Erasmus Hogeschool.

⁹⁹Art. 23 § 2 Teaching and Examination regulation Erasmus Hogeschool.

¹⁰⁰This commission consists of at least 4 members. The ombudsperson is a member, but he/she only plays an advisory role.

¹⁰¹Art. 23 § 3 Teaching and Examination regulation Erasmus Hogeschool.

¹⁰²The Office is formed by the chairman and vice-chairman of the Examination Board. The chairman may also invite an ombuds person and/or another expert. See art. 3bis, 1 Education and examination regulations UHasselt.

¹⁰³This limited commission exists of the president, secretary and at least three not-involved members of the progress commission. The ombudsperson has an advisory role (art. 32 Examination regulations PXL).

¹⁰⁴Art. 32 Examination regulations PXL.

¹⁰⁵Art. 9.2 Education and examination regulations UHasselt.

¹⁰⁶Art. 9.2 Education and examination regulations UHasselt & art. 32 § 1 Examination regulations PXL.

¹⁰⁷Art. 9.3, § 2 Education and examination regulations UHasselt & art. 32 Examination regulations PXL.

¹⁰⁸Art. 9.3, § 2 Education and examination regulations UHasselt.

¹⁰⁹Art. 9.3, § 3 Education and examination regulations UHasselt & art. 32 § 2 Examination regulations PXL.

institution that determines that “when it is ruled that an irregularity did not occur, the student may ask to retake the examination in question”.¹¹⁰

Appeal may be filed starting from the day after the student in question was informed of the decision.

f) Procedure: conclusion

The procedural rules on the assessment of irregularities and the determination of its consequences, defer impressively throughout the Flemish high education landscape. This can be seen in the following tables.

This clearly shows that there is no common viewpoint on how – internally – irregularities (including plagiarism) should be assessed.

In the subsequent chapter, we will discuss which sanctions can be applied by the Flemish HEIs according to their regulations. Again, we will find that there is a large diversity in possible sanctions.

4. Sanctions

As it is quite easy to put the different sanctions that can be pronounced when the commitment of an irregularity is as ascertained in tables, this chapter will discuss the application of these sanctions solely in such tables. These are the sanctions that are foreseen in the Flemish HEIs exam regulations:

- Retake the exam (in case the exam was not taken in a valid way);
- Receive appropriate mark taking into account the irregularity;
- Zero on the exam/part where an irregularity was committed (f.e. on the paper in which plagiarism was committed);
- Zero for the course unit (0/20 as a final result for this course)
- Zero for all the exams of that exam period (and thus not solely the exam during which an irregularity was committed);
- Exclusion for the course unit for a year (meaning that the student will not be able to retake the exam in summer);
- Change of subject/promotor for thesis (f.e. when plagiarism was committed in the framework of this thesis);
- Exclusion from the whole study programme for year (the student can at the earliest enroll again in the next academic year and loses all the results obtained in the examination period/whole year);
- Exclusion from the school, for a limited period of time (max. at Flemish HEIs is 10 year);
- Participate in module on plagiarism (self-study)

¹¹⁰Art. 9.3, § 5 Education and examination regulations UHasselt.

Table 3
Procedure (I)

	Student can finish exam	Student can still take other exams	Investigation carried out by chairman exam commissions	Investigation carried out by ombudsperson	Investigation by the dean/director department	External expert in case of plagiarism	Student has a right to be heard	Student can use legal counsel	Student is assisted by ombudsperson during hearing
Leuven Association									
KULeuven	x	x	x			x	x		
LUCA	x	x	x			x	x		
Vives	x	x	x			x	x		
Thomas More	x	x	x			x	x		
Odisee	x	x	x			x	x		
UCLL	x	x		x		x	x		
Ghent Association									
UGent	(x)	x	x				x	x	
HoGent	(x)	x			x		x		
Artevelde	x	x	x				x		x
HoWest	x	x	x				x		x
Antwerp Association									
UAntwerpen	x	x	x				x	x	
KdG	x			x			x	x	
Artesis Plantijn	x		x				x		
Zeevaartschool		x	x				x		x
Brussels Association									
VUB		x			x		x	x	
Erasmus		x			x		x		
Hasselt Association									
UHasselt	x	x	x				x	x	
PXL	x	x	x				x		

Table 4
Procedure (II)

	Limited examination commission makes a proposal	Decision is taken by examination commission	Decision is taken by limited examination commission	Decision is taken by body specialized in fraud	Decision is taken by dean/director department	Decision is taken by the president of the examination commission	Electronic meeting of examination commission is possible
Leuven Association							
KULeuven	x	x					
LUCA	x	x					
Vives	x	x					
Thomas More	x	x					
Odisee	x	x					
UCLL	x	x					
Ghent Association							
UGent		x					
HoGent					x		
Artevelde		x					
HoWest						x	
Antwerp Association							
UAntwerpen				x			
KdG		x					x
Artesis Plantijn				x			
Zeevaartschool						x	
Brussels Association							
VUB					x		
Erasmus				x			
Hasselt Association							
UHasselt				x			
PXL			x				

- Results & certificates already obtained declared null and void (when the exam fraud is so serious that any favourable decision is deemed non-existent under the law)¹¹¹

Table 5 represents the sanctions that can be imposed by Flemish HEIs according to their exam regulations.

Again, it is striking that the HEIs do not have one sanction completely in common. Even imposing a zero score for the whole course unit, is not a sanction that can be proposed in all HEIs. It is also striking that some schools have a limited number of options, f.e. the Zeevaartschool, HoWest and Artevelde. Especially at Artevelde and the Zeevaartschool, the sanctions are very strict (zero score for all the exams or exclusion). This will probably stimulate lecturers to deal with irregularities independently, without consulting the procedural body that – according to the Exam regulation – should deal with cases of fraud. This opens the door for procedural irregularities, maybe leading to internal or external appeal procedures.

In a small number of exam regulations, the criteria that need to be taken into account when deciding upon the sanction for an irregularity that has occurred, is also determined.¹¹² In the framework of the Leuven Association, it is explicitly mentioned that these criteria apply to cases of plagiarism.

3) Conclusion: plagiarism in the Flemish HEIs – legislative framework

The legislative framework regarding irregularities (and more specifically plagiarism) committed in Flemish HEIs is very fragmented. This is caused by the fact that schools can determine themselves, in their Exam Regulation, how they define an irregularity and how they want to deal with it. This leads to very differing regulations throughout Flanders. The idea of the university associations does not lead to a larger similarity: only the Leuven association has succeeded in creating a rather uniform text, though not every member of the association strictly follows it. Within the framework of the other associations, every school clearly determines what they deem necessary.

It is therefore very difficult to discover tendencies. Most HEIs define irregularities in a very broad manner (though not all). The same can be said for the definition of plagiarism: in some schools, the traditional meaning of plagiarism is broadened beyond

¹¹¹Art. 86 Regulations on Education and Examinations KULeuven; art. 86 Education and Examination Regulation LUCA; art. 51 Education and Examination Regulation Vives; art. 74 Education and Examination Regulation Thomas More; art. 85 Education and Examination Regulation Odisee; art. 130 Education and Examination Regulation UCLL; art. 79 § 6 Education and Examination Code UGent; art. 60 § 5 Education and Examination Code HoGent; art. 68 Education and Examination Code HoWest, art. 97 Study Contract Artevelde; art. 18.5.2. Education and Examination Regulation of the University of Antwerp; art. 20.5 Education and Examination Regulations of Artesis-Plantijn Hogeschool; art. 4.3 University College Education and Examination Regulations KdG; art. 80 Education and Examination Regulations Zeevaartschool; art. 118 § 5 Teaching and Examination regulation Vrije Universiteit Brussel; art. 23 § 4 Teaching and Examination regulation Erasmus Hogeschool; art. 33 Examination regulations PXL; art. 9.3 Education and examination regulations UHasselt.

¹¹²Art. 86 Regulations on Education and Examinations KULeuven; art. 86 Education and Examination Regulation LUCA; art. 51 Education and Examination Regulation Vives; art. 74 Education and Examination Regulation Thomas More; art. 85 Education and Examination Regulation Odisee; art. 118 § 6 Teaching and Examination regulation Vrije Universiteit Brussel.

Table 5
Sanctions

	Retake the exam	Receive appropriate mark	0 on the exam/part where an irregularity was committed	0 for the course unit	0 for all the exams of that exam period	Exclusion for the course unit for year	Exclusion from the whole study programme for year	Change of subject/promotor for thesis	Exclusion	Participate in module on plagiarism	Results & certificates already obtained declared null and void
Leuven Association											
KULeuven	x	x	x	x	x	x	x	x	x	x	x
LUCA	x	x	x	x	x	x	x	x	x	x	x
Vives	x	x	x	x	x		x	x		x	
Thomas More	x	x	x	x	x	x	x	x	x		
Odisee	x	x	x	x	x	x	x	x	x	x	x
UCLL			x	x	x	x					x
Ghent Association											
UGent		x	x	x					x		x
HoGent				x	x						
Artevelde					x				x		
HoWest			x	x	x						
Antwerp Association											
UAntwerpen			x	x	x	x	x				
KdG			x	x	x	x	x		x		
Artesis Plantijn			x	x	x	x					
Zeevaartschool					x				x		
Brussels Association											
VUB			x	x	x		x		x		
Erasmus				x	x	x	x				x
Hasselt Association											
UHasselt		x	x	x		x					x
PXL	x		x		x	x	x				x

Table 6

Criteria taken into account when deciding upon sanctions

	Proportions of irregularity	Kind of irregularity	Experience student	Intentions of student (malicious intent)
Leuven				
KULeuven	x	x	x	x
LUCA	x	x	x	x
Vives	x	x	x	x
Thomas More	x	x		x
Odisee	x	x	x	x
UCLL				
Ghent				
UGent				
HoGent				
Artevelde				
HoWest				
Antwerp				
UAntwerpen				
KdG				
Artesis Plantijn				
Zeevaartschool				
Brussels				
VUB	x		x	x
Erasmus				
Hasselt				
UHasselt				
PXL				

these traditional boundaries. Ghost-writing and even falsification of research data can be qualified in Flanders as plagiarism.

With regards to procedure and sanctions, it is even more difficult to find clear evolutions. What is most apparent is that – in a majority of HEIs – a smaller body (a body of one or a limited number of persons) is involved in the preparation and/or making of the decision. In other HEIs, an overarching body is involved when the harshest sanctions are applied, as to make sure that the exam regulation is applied in a similar manner for the same type of cases throughout the whole HEI. This can be seen as a good practice, to make sure that there is some sense of legal certainty for the students with regards to the consequences of their behaviour. As to the sanctions, it is striking that some HEIs only have a very limited choice of sanctions. When these options are small and only concern strict sanctions, this will – without a doubt – cause hesitations for lecturers to report plagiarism.

In the following chapter, we will study how the Council for the settlement of disputes on study progress decisions deals with cases of plagiarism committed in Flemish HEIs. This will provide an insight on how these schools deal with plagiarism in the framework they created themselves in their regulations, but – more importantly – how a the decisions HEIs take on plagiarism, are assessed by an independent legal body.

4 Plagiarism in the case law of the Council for the settlement of disputes on study progress decisions

1) *The Council for the settlement of disputes on study progress decisions*

In 2004, the Flemish community established a Council for the settlement of disputes on study progress decisions (CSDS).¹¹³ This Council was founded to relieve the Council of State, the general administrative court of Belgium, from the workload that was caused by the appeals of students against decisions taken by their HEIs.¹¹⁴

Today, the Council is a fully functioning administrative court dealing with approximately 400 cases each year.¹¹⁵ A chamber of the council consists of one president (a legal expert with a thorough knowledge of higher education) and two assessors (that should have at least 5 years' experience as a member of academic or assisting staff of a HEI).¹¹⁶

In terms of procedure, an appeal has to be lodged within 5 calendar days after the day the student was notified of the decision on the internal appeal. A student first has

¹¹³Decr. VI. 19 maart 2004 betreffende de rechtspositieregeling van de student, de medezeggenschap in het hoger onderwijs, de integratie van bepaalde afdelingen van het hoger onderwijs voor sociale promotie in de hogescholen en de begeleiding van de herstructurering van het hoger onderwijs in Vlaanderen, *BS* 10 juni 2004, 43763. This law was integrated in the Flemish Higher Education Code in 2013.

¹¹⁴L. VENY & B. VERBEECK, "Grasduinen omtrent enkele aspecten van het examencontentieux van de raad voor betwistingen inzake studievoortgangsbeslissingen" in X, *Liber Amicorum Marc Boes*, Brugge, Die Keure, 2011, 562.

¹¹⁵In 2013, the council dealt with 413 cases, 68 more than in 2012. The case load of the Council has steadily been growing every year (see X, "Jaarverslag werkzaamheden 2013", <http://onderwijs.vlaanderen.be/studenten/klachten-en-problemen/beroep-aantekenen-bij-de-raad/beslissingen-van-de-raad/verslagboeken>, 2.

¹¹⁶Art. II.287 Flemish Higher Education Code.

to exhaust all existing internal remedies within his/her HEI, otherwise the appeal is declared inadmissible.¹¹⁷ Arguments given before the Council also need to have been presented within the framework of the internal procedures otherwise they cannot be discussed by the Council.¹¹⁸ The Council is competent to control the application of the legal framework (including national and regional legislation and the regulatory framework created by the individual HEIs) and the general principles of administrative law.¹¹⁹

In the framework of plagiarism cases, the Council clearly uses these competences. The control of the general principles of administrative law (for example the principle of legal certainty, the proportionality principle, the fair play principle etc.) creates the most interesting case law in the framework of plagiarism. This case law namely proves that HEIs, which are public actors, do not only need to respect their own regulations, but also the general principles of administrative law even when this would lead to decisions that are – in principle – not in accordance with the text of their regulations.

In the following chapter, the case law of the council on plagiarism is discussed. We will use a topical approach to structure the different cases.

2) Plagiarism before the Council for the settlement of disputes on study progress decisions

1. Definition of plagiarism

The Council, in his jurisprudence, clearly states that it is not competent to replace the decision of the HEI on the existence of plagiarism. It is thus not the task of the CSDS to determine whether or not the student is guilty of committing plagiarism. It is competent however to decide whether or not the HEI, on the basis of the facts of the case and the regulatory framework provided, reasonably could establish that the student had indeed committed plagiarism.¹²⁰

The Council thus only interferes when a HEI has overstepped the boundaries of the reasonable. In practice it is thus very difficult for a student to win a case on the basis of the argument that he/she did not commit plagiarism.

As the cases on the definition of plagiarism are always very factual, it is easier to discuss some examples. In case 2007/059 for example, the Council agreed with a Flemish HEI that copying a part of a text without mentioning the source, is plagiarism. The fact that 9consisted of this plagiarized text, proved that the decision of the HEI to sanction the student was not delivered in an unreasonable manner.¹²¹ In case 2209/036, the Council found that – in line with the exam regulation of the HEI – the fact that the source was mentioned in the bibliography, but not on the pages where the source was quoted, does not avoid the rightful qualification as plagiarism. The fact that the student did not intend to commit plagiarism, does not impact the qualification of plagiarism, as the Exam Regulation of the HEI explicitly determines that malicious intent does

¹¹⁷Art. II.294 Flemish Higher Education Code.

¹¹⁸Art. II.285 Flemish Higher Education Code.

¹¹⁹Art. II.291 Flemish Higher Education Code.

¹²⁰CSDS 17 June 2009, nr. 2009/036; CSDS 16 May 2014, nr. 2014/052 & CSDS 30 September 2014, nr. 2014/024.

¹²¹CSDS 9 November 2007, nr. 2007/059.

not need to be proven.¹²² In case 2014/052, the qualification as plagiarism of the behaviour of a student that copied 3 pages from a source for her assignment, without any acknowledgment, was accepted. The qualification as fraud was also accepted.¹²³

In case 2005/030, the student handed in a paper where she copied several paragraphs from a website. The lecturer notified the dean of this case of, what he called, plagiarism. The dean however decided that this was a case of fraud, as the student did refer to the source in her text. The student was consequently sanctioned for fraud but appealed to the CDSC. The Council did not find that the dean's decision was unreasonable, as the parts that were copied from the website were long, with very concise acknowledgments and no personal contributions were provided by the student.¹²⁴

Specific issues arise when papers that are handed in by students are similar to the work of other students. In most cases, it then arises that these students cooperated while making the papers. In case 2013/031 the Council found that the explanation given together with the assignment at the beginning of the school year, did not prohibit cooperation between students but also did not allow it. It found a provision in the explanation in which it was stressed that the assignment should always be an original piece of work. This was enough for the Council to decide that papers that were for 95% copied lead to an assessment of fraud (and thus not plagiarism).¹²⁵ A different conclusion was reached in case 2013/094. In this case, students also cooperated but the school allowed cooperation between groups for this assignment.¹²⁶

The only time the Council has critiqued the definition applied by the HEI can be found in decision nr. 2014/0024. In this case, the student copied integral parts of texts from several sources, including the acknowledgments that were incorporated in these original texts. The HEI defined plagiarism as "*the use of other people's phrasing, adapted or otherwise, without careful acknowledgement of sources as well as any form of fraud that is a violation of scientific integrity*". The Council found that this definition deviates from the regular meaning of plagiarism, which normally stresses the intentional element in the behaviour of the student. The Council regrets the fact that this definition is so broad and general. Nevertheless, it found that the decision of the HEI was not taken in an unreasonable manner. Even then, the argument of the student was thus declared unfounded, notwithstanding the explicit critique of the Council. The HEI has not amended the definition of "plagiarism" in its Exam Regulation.¹²⁷

2. Use of anti-plagiarism tools

In several Flemish HEIs, anti-plagiarism systems are used. In some cases, students are obliged to use these tools themselves as means of self-control, but lecturers can also use it to control the work that was handed in. One of the most used systems in Flanders is "Turn-it-in". The Council has dealt with two cases where Turn-it-in was used to determine a case of plagiarism that was subsequently sanctioned as such.

¹²²CSDS 17 June 2009, nr. 2009/036.

¹²³CSDS 16 mei 2014, nr. 2014/052.

¹²⁴CSDS 13 October 2005, nr. 2005/030.

¹²⁵CSDS 13 March 2010, nr. 2013/031.

¹²⁶CSDS 13 March 2010, nr. 2013/031.

¹²⁷CSDS 30 September 2014, nr. 2014/024.

In case 2010/012, the Council stated that the results of a Turn-it-in test can only be used as an indication of plagiarism. It is up to the school to provide an overview of the passages that were plagiarized, as plagiarism is not sufficiently proven to exist solely on the basis of the Turn-it-in results.¹²⁸ In case 2014/204, the Council confirms again that the result of an anti-plagiarism tool can only be used when the investigation on plagiarism provides sufficient evidence in a trustworthy manner. It is thus necessary for the HEI to use the result as an indication, but should carry out subsequent investigations.¹²⁹

3. Procedure

1) Right to be heard

In all Flemish HEIs, the student has the right to be heard when he/she is suspected of having committed plagiarism. Discussions however arise when the student is not in the possibility to attend the hearing. In case 2010/012, the student could not defend herself because she was abroad for family reasons. She therefore sends an e-mail as to request to be heard by telephone. She never received an answer to this e-mail and the decision was taken without a possibility for her to defend herself. The Council decided, taking account the extensive consequences of the applied sanction, that it was unreasonable not to answer her e-mail and deprive her from her right to be heard. Her complaint was thus declared founded.¹³⁰

It is different when a student does not turn up at a meeting at which he/she requested to be heard, without a legitimate reason for being absent. The fact that a decision was taken without hearing the student in such a case, is not found to be illegitimate.¹³¹

2) Irregular composition of the fraud commission

In some HEIs, the decision either needs to be taken by a specialised fraud commission, though in others this commission only needs to give its seal of approval in case a certain strict sanctions is applied. In case 2010/012, the latter was applicable: as the student was excluded from the school for committing plagiarism, the fraud commission of his university approved the exclusion. The commission however was not completely present (though it is unclear who was missing). As the Exam regulation of the HEI in question did not mention a quorum, the Council could not do anything else than conclude that every member of the fraud commission needed to be present.¹³²

3) Independence of the internal appeal commission

The fact that the internal appeal committee decides in the same way as the Dean, does not make this appeal committee biased.¹³³ What does make it partial, is the fact that

¹²⁸CSDS 12 May 2010, nr. 2010/012.

¹²⁹CSDS 30 September 2014, nr. 2014/204.

¹³⁰CSDS 12 May 2012, nr. 2010/012.

¹³¹CSDS 17 August 2012, nr. 2012/132.

¹³²CSDS 12 May 2010, nr. 2010/012.

¹³³CSDS 16 May 2014, nr. 2014/052.

the Dean who took the decision against which the appeal was launched, is a member of the internal appeal commission even if he or she only plays an advisory role.¹³⁴

4) *Motivation of the decision of the internal appeal commission*

It is not sufficient for the appeal commission to decide upon an appeal by using the phrase: “*after ample deliberation we have decided that there are no sufficient reasons to reconsider the decision of the examination commission*”. This does not provide the student the possibility find the reasons for which the commission has determined to reject the appeal. The obligation to motivate administrative decisions was consequently violated in this case.¹³⁵

4. *Sanctions*

1) “*Nulla poena sine lege*”

In case 2010/043 the student was given a combined sanction: two sanctions that were foreseen in the Study Contract as individual sanctions where applied together. This combination of sanctions was however not explicitly foreseen in the Study Contract, but the contract did mention that “*the exam commission can impose every sanction it deems appropriate*”. The Council ruled that the student needed to be certain in assessing which sanctions could be imposed when committing plagiarism. Combining two sanctions, a possibility not explicitly foreseen in the Study Contract, therefore violates the principle of legal certainty.¹³⁶

2) *Proportionality of the sanction*

The majority of the decisions of the Council, and especially the more recent ones, concern the (dis)proportionate nature of the sanction that was imposed for the committed plagiarism. The Council – like when deciding upon the classification of a case as plagiarism – only declares a complaint founded when there is a clear disproportion between the seriousness of the offence and the severity of the sanction.¹³⁷

The Council takes into account several elements when deciding whether or not a sanction is indeed disproportionate. The case law will be discussed in the framework of these elements.

– **Extent and nature of the plagiarism**

The extent of the plagiarism is always taken into account when deciding upon the proportionality of the sanction. In case 2007/059, 9plagiarized. The Council found the sanction “*exclusion for the course unit for the rest of the year*” proportionate.¹³⁸

¹³⁴CSDS 23 July 2013, nr. 2013/095bis.

¹³⁵CSDS 12 May 2010, nr. 2010/012.

¹³⁶CSDS 16 August 2010, nr. 2010/043.

¹³⁷CSDS 9 November 2007, nr. 2007/059; CSDS 17 June 2009, nr. 2009/036; CSDS 12 May 2010, nr. 2010/12; CSDS 17 August 2012, nr. 2012/132; CSDS 8 August 2013, nr. 2013/094; CSDS 23 August 2013, nr. 2013/156; CSDS 16 May 2014, nr. 2014/052; CSDS 22 July 2014, nr. 2014/083; CSDS 30 September 2014, nr. 2014/182 and CSDS 30 September 2014, nr. 2014/204.

¹³⁸CSDS 9 November 2007, nr. 2007/059.

In case 2013/156, the student had plagiarized almost half of his paper (he translated a text, only crediting the source in his bibliography). The sanction “exclusion from the study programme for the whole year” combined with the loss of all grades obtained in June, was not found disproportionate by the Council.¹³⁹

In case 2014/204, the Council ruled that the HEI did not sufficiently take into account the nature of the plagiarism committed by the student. The student was found guilty of using “inaccurate references”. This is very different from not mentioning any source, thus the Council. The only thing that was taken into account according to the Council, was the extent of the “plagiarism”. This led to the exclusion of the student from the course for the whole academic year, a disproportionate sanction according to the Council.¹⁴⁰

– **Malicious intent student**

In case 2013/094, which was already mentioned above, the students of a group work were sanctioned because one of them copied from another group. In the framework of the sanction, the council ruled that it was unfair that the “honest partner” that did not know the irregularity was committed, was sanctioned equally harsh as the dishonest partner that committed plagiarism. This can be done, according to the Council, but only when the Exam Regulation explicitly foresees in this possibility. In this case, the sanction (exclusion from the course for the whole year) was found to be disproportionate in light of the honest intentions of the student that launched the appeal. Especially the fact that the student lost the opportunity to re-take the exam in the summer, was found to be too severe.¹⁴¹

In case 2014/052, the Council ruled that accidentally handing in a previous draft version of the assignment (an unfinished version, without sources) cannot exonerate the student from her behaviour. It is her task to control whether or not she hands in the correct version.¹⁴²

– **The foreknowledge of the student on plagiarism**

In case 2009/036, the fact that the student argued that she did not have enough foreknowledge on the citation rules, was not agreed upon as an excuse for committing plagiarism by the Council. It was up to the student to inform herself on these rules.¹⁴³ In case 2013/156, the fact that the student was likely to be less familiar with plagiarism because of his previous studies, was also not taken into account as a mitigating circumstance.¹⁴⁴

Also influential is the fact whether or not in the framework of the course, guidelines are given regarding citations and plagiarism. In case 2014/052, this clearly happened on several occasions (on the online platform, in the handbook and in a PowerPoint presentation given in class). Thus, notwithstanding the fact that the student was a first year, she should have known what plagiarism was, how it can be

¹³⁹CSDS 23 August 2013, nr. 2013/156.

¹⁴⁰CSDS 30 September 2014, nr. 2014/204.

¹⁴¹CSDS 8 August 2013, nr. 2013/094.

¹⁴²CSDS 16 May 2014, nr. 2014/052.

¹⁴³CSDS 17 June 2009, nr. 2009/036.

¹⁴⁴CSDS 23 August 2013, nr. 2013/156.

avoided and that it cannot be tolerated.¹⁴⁵ The same was decided in case 2014/204. In this case, several guidelines were given to the students on how to cite correctly and avoid plagiarism.¹⁴⁶

Previous studies can however mitigate the fact that no clear guidelines on plagiarism were given in the framework of the course. In case 2014/182, the Council argued that – as the student had already followed master programmes – he should have been aware of the citation rules.¹⁴⁷

– Study phase of the student

In case 2014/083, the student was found guilty of plagiarism in the framework the last course she needed to take to receive her degree as a nurse. The sanction for her plagiarism was the exclusion from school, and this for 3 years. The Council found this sanction to be too severe: as the student was in the last phase of her studies, the fact that she cannot enrol for that final course during three years disproportionately influences the position of the student. The application of the harshest sanction foreseen in the regulation was thus disproportionate.¹⁴⁸

In case 2014/204, the Council took into account that the student – because of his exclusion from the course for the whole year – could not obtain his master's degree and consequently could not enrol in a specialised master. This, linked with the fact that the nature of the plagiarism was not taken into account (see above), led to the establishment of the disproportionate nature of the sanction.¹⁴⁹

In the framework of case 2014/182, a similar problem existed: the student was following a master and was also excluded from the school for plagiarism. However as he was a recidivist (*see below*) the Council did not find this exclusion disproportionate.¹⁵⁰

– Recidivism

In case 2014/182, the student was excluded from the HEI after committing plagiarism for the second time in the framework of the same course. This sanction was not deemed disproportionate by the Council, as the student knew that – in case he committed plagiarism again – he would be sanctioned severely. He also did not seek help from his supervisor after the sanction was given in January, although he had the chance to do this.¹⁵¹

– Motivation of the application of these criteria

In practice, several HEIs have incorporated some of these criteria in their Exam Regulation (see above, table 6). It is thus not uncommon today that exam commissions or other sanctioning authorities already mention and touch upon these criteria in their decisions. It is however crucial that –when doing this and

¹⁴⁵CSDS 16 May 2014, nr. 2014/052.

¹⁴⁶CSDS 30 September 2014, nr. 2014/204.

¹⁴⁷CSDS 30 September 2014, nr. 2014/182.

¹⁴⁸CSDS 22 July 2014, nr. 2014/083.

¹⁴⁹CSDS 30 September 2014, nr. 2014/182.

¹⁵⁰CSDS 30 September 2014, nr. 2014/182.

¹⁵¹CSDS 30 September 2014, nr. 2014/182.

adding a corresponding qualification (such as “heavy”), this qualification needs to be thoroughly motivated. Just adding the word “heavy” does not suffice.¹⁵²

5 Conclusion

Plagiarism is barely regulated in international, European or national laws. Therefore, in an educational context, there is a large discretionary competence attributed to the HEIs on how they deal with plagiarism in Flanders.

This leads to a very diverse legislative framework. Almost every HEI in Flanders uses his own definitions, procedures and sanctions. It is difficult to find trends or “guidelines” in the current regulation of plagiarism in Flemish HEIs. The creation of university associations has only led to more similarity in the framework of one association, namely the University of Leuven Association. In the framework of other associations, the ongoing cooperation is not specifically reflected in the exam regulations.

It might be interesting for the Flemish HEIs to look for best practices for the creation of better regulations on plagiarism. The case law of the Council for the settlement of disputes on study progress decisions could play a leading role in this regard. The case law clearly acknowledges that some practices are not acceptable in light of the general principles of administrative law. Today, it is clear that HEIs do not really learn from decisions taken by the Council. Changes, that are required in light of case law, are not made.

The following best practices can be found:

- The definition of “irregularity”: this definition should be broad, and the Exam regulation should surely contain a clear definition. This is important as it is a safety net for cases that cannot be qualified as plagiarism
- The definition of “plagiarism”: this definition should – taking into account the critique of the CSDS – not be too broad. It is safer to have a rather strict definition of plagiarism and a broad definition of irregularity, as cases that do not qualify as plagiarism can then be sanctioned. The tendency of the CSDS is to be more strict on the assessment (and definition) of plagiarism, and it is thus dangerous to qualify behaviours such as ghost writing and falsification of research data as plagiarism. It is safer to qualify them as irregularities.
- Malicious intent: if a HEI finds that malicious intent is not necessary to commit a irregularity (including plagiarism), it is best to explicitly regulate this in the Exam regulation.
- Procedure: with regards to the procedure, it is impossible to state which procedure is better. It is advisory that the decision should not be taken by one person. When there is discussion, it easier to provide decision that is better motivated and more carried by the academic staff.
- It is clear that the student has the right to be heard. However, not all HEIs provide the student the right to be helped by a legal representative. This should be the case.

¹⁵²CSDS 12 May 2010, nr. 2010/012.

In schools where the students are represented by the ombudsman, this could lead to judicial problems in term of the independency of this aid.

- With regards to sanctions, it is crucial that the HEI provides sufficient possibilities, varying in severity. When the choice is limited and sanctions are harsh, there is a larger threshold for lecturers to report plagiarism. This will lead to sanctions applied by lecturers individually, without following the procedures of the Exam regulations. This could eventually to more procedures before the CSDS.
- Use of anti-plagiarism tools: it is crucial that – when used – anti-plagiarism tools are only used as an indication of the commitment of plagiarism. It does not suffice to print the report and the highlighted areas of text to prove plagiarism. It requires further attention from the correcting lecturer.
- Guidelines on plagiarism: the CSDS has to today never found that the lack of clear guidelines on citations and plagiarism has exonerated a student from committing plagiarism. This is because all cases concerned master students that are supposed to have a clear foreknowledge on these rules. For younger students it is therefore advisable to provide clear guidelines on plagiarism and citation rules (in the framework of the course or even the whole study program).

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WORKSHOPS

TEACHING AGAINST PLAGIARISM – PROVEN METHODS AND NEW GROUND

Tony Franzky, Sabina Krämer, Kerstin E. Kohl, Ute Nunnenmacher, Ansgar Schäfer,
Oliver Trevisiol

Abstract:

The workshop presents two innovative concepts for plagiarism prevention. It aims to inspire participants to think about and design alternative ways of teaching.

First, the workshop presents the teaching tool “Voluntary Plagiarism Check” and how it is established and conducted at the PH Freiburg, Germany. The participants are invited to discuss about this software-based approach of prevention reflecting their own experiences.

Secondly, a new mobile e-learning tool is introduced. This App-based tool shows, how new technical possibilities go hand in hand with up to date concepts of teaching. The participants can outline a concept, how it could be used in their university.

Key words: teaching methods, mobile learning, voluntary plagiarism check, plagiarism prevention

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PLAGIARISM DETECTION 2.0: DETECTION OF CONTRACT CHEATING

Wasi Khan

Abstract:

Contract cheating is the practice of outsourcing your academic work to a third-party and submitting it as your own. Since this problem is unique, none of the preexisting tools can be used to detect contract cheating.

The workshop sheds a light on the workflow of the contract cheating student, and how certain indicators (dubbed cheat metrics) can be used to detect instances of contract cheating. These indicators include: location/machine changes, copy/paste activity and writing time. A new technology, Doctopus, is introduced and demonstrated which uses these indicators to help detect contract cheating.

Key words: contract cheating, detection of contract cheating, ghostwriting, detecting ghost-written papers

PLAGIARISM, POLICY AND PEOPLE: EXPLORING TENSIONS

Alexandra Pitt, Faith Dillon-Lee

Abstract:

In this workshop qualitative data will explore tacit attitudes among lecturers towards how different stakeholders engage with academic integrity. Subjects drawn from Lecturers at our university engage in a creative feedback task to pictorially explore how they perceive the state of plagiarism as it pertains to themselves, their colleagues, the students and the institution (the stakeholders). They then reflect on that process and the interpretation of this visual and written data is analysed against institutional policy and cultural trends. The aim is to uncover tacit and explicit assumptions among the academic community of our institution and consider the implications of this for the awareness, prevention and further study of plagiarism. In the literature, the formation of policy and cultural adjustment of students towards that policy predominate but assumptions are made about intentionality, transparency and cultural transition. In reality, the embracing of cultural diversity struggles against a need for cultural adjustment and the rigidity of expectations tussles with the aims of British higher education to nurture independence and innovation. As a university with one of the most diverse student and lecturer bodies in London, our context provides a rich case study in which to explore these tensions and how disparate interests and attitudes impact on this. We take a holistic, reflective and critically aware approach to investigate practice, policy and stakeholder involvement in handling plagiarism and managing diversity. We argue for a cohesive community of practice through reflection and exploration of tacit attitudes which impact on all stakeholders.

Key words: Plagiarism; Policy; Tacit and Explicit Attitudes; Constructive Alignment; Holistic

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POSTERS

PERCEPTION AND ATTITUDES TOWARDS RESEARCH MISCONDUCT: A SURVEY IN YOUNG BIOMEDICAL RESEARCHERS IN ITALY

Marco Cosentino, Mario Picozzi, Franca Marino

Abstract:

Worldwide concern is growing about the irreproducibility of a high number of published findings, in particular in biomedical sciences, likely due to misconduct as well as to questionable research practices. In Italy no guidelines exist on research misconduct. To assess perception and attitudes towards misconduct, a Scientific Misconduct Questionnaire was submitted to young researchers attending a course on methodology, ethics and integrity of biomedical research at the University of Insubria (Varese, I) during November 2014.

Overall, 38 researchers filled the questionnaire (79% females, 76% PhD students, 68% with at least one publication). 21% were aware of misconduct in workplace. Respondents rated occasional/frequent: occurrences of plagiarism (26%), data falsification (37%), selective dropping of data from "outlier" cases (32%). Overall, 29 respondents (76%) were concerned about misconduct and 8 (21%) said they did not know. Effectiveness of existing rules for reducing misconduct was rated low by 42% and high by 40%. Severity of penalties for misconduct was deemed low by 53% and high by 29%. Nearly all (95%) agreed about the need for training on research methodology and ethics. In summary, most of the young researchers perceived misconduct as a frequent occurrence in their workplace and ask for training. Research institutions have a crucial duty for ensuring research integrity and should include specific training for PhD students as well as for postdoc researchers.

Key words: scientific misconduct; questionable research practice; perception and attitudes; young researchers; institutions

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ACADEMIC INTEGRITY PROGRAM DARE TO THINK

Universidad EAFIT

Abstract:

Dare To Think is the project that Universidad EAFIT launched in July 2011 with the objective of opening a dialogue among the EAFIT community concerning responsibility, ethics and integrity. The idea was not to restrict the discussions to academic dishonesty, but to approach the subject in a broader way.

The project's communicational component has consisted until to-day of five different phases: "cult of cunning", "academic dishonesty", "civic culture", "being better", and "academic integrity". Each phase has encompassed different strategies: a lecture by an expert, a cinema forum, and a billboard/visual campaign with thought-provoking phrases.

The educational component ran concurrently with the previous interventions and should be continued with a view to establishing an academic integrity policy.

Among the outcomes of the Program, that have resulted from a constant work in the last four years, it can be highlighted that: 1. Dare to Think became a permanent program for the University as declared by the University's Principles of Governability and Administration. 2. The Academic Integrity subject became very visible not only within the EAFIT community but also in many other institutions in Colombia where the University has been invited to share the experience. 3. Each year, around 2,500 freshmen attend an Academic Integrity Workshop led by a group of volunteer students who are part of the Dare to Think Student's Committee.

Key words: Colombia, Medellin, integrity, responsibility, ethics, dishonesty, fraud, plagiarism

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PLAGIARISM PREVENTION PROJECT – REFAIRENCE

Tony Franzky, Kerstin E. Kohl, Sabina Krämer, Ute Nunnenmacher, Ansgar Schäfer,
Oliver Trevisiol

Abstract:

The project's strategy is to prevent students and scientists from making intertextual mistakes. Therefore the project aims at eight goals starting from researching writing practices and institutional measures to the final distribution of teaching materials (have a look at <http://www.plagiatspraevention.uni-konstanz.de/en/aims-of-the-project/>).

The poster will list some results of our work e.g. an overview and some examples for teaching material, recommendations, and further education courses for faculty, which are and will be developed by the project (e.g. citation evaluation exercise, suggestions for topics to discuss with faculty, information papers for students, who want to hand in a thesis,...).

Key words: Strategy for plagiarism prevention, plagiarism research (student texts, best practice, misconduct, ...), tools for plagiarism prevention

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EXPLORATIONS OF RESEARCH ETHICS IN LITHUANIA: THE UP-TO-DATE FINDINGS AND FURTHER RESEARCH TRENDS

Novelskaitė Aurelija, Pučėtaitė Raminta, Lipnevič Anna, Adomaitienė Reda, Mikėnė Svajonė

Abstract:

Research ethics is a phenomenon which is just acquiring institutionalized forms in Lithuania. However, the process is slackening because of a lack of exhaustive explorations in the field: existent versatile perceptions of the phenomenon outgrow into endless debates about nature and sources of ethics rules, scope of their application, etc. In this work we regard research ethics as a phenomenon applicable to both normative and empirical and both fundamental and applied explorations accomplished in all fields of science, and at all stages of the study starting from the initial one, i.e. developing the study idea, to the completion, i.e. presenting and disseminating study findings. The poster is designed to present the most recent empirical findings on prevailing approaches towards research ethics and existing formal definitions of the phenomenon in Lithuania. All presented materials are based on the findings of several research projects (RP) which were funded by the Research Council of Lithuania in 2010–2015. RP Scientific research ethics in Lithuania: the status quo analysis (MTėtika) (2010–2011) – Comparative analysis of the EU and Lithuanian legal documents defining research ethics issues revealed that bounding international documents are implemented into the national legal system. However (excluding the case of biomedical research), the documents are of rather general content. – Analysis of the national legal documents outlining research ethics issues in Lithuanian science system unfolded significant improvements of research ethics supervision on the national level and, additionally, exposed gaps between legal imperatives and actual behaviour of the institutions in the realm of research ethics institutionalization. – Analysis of internal documents (i.e. ethics codes) of national science institutions (e.g. Lithuanian scientists' society) and research organizations (e.g. universities) defining research ethics showed that research ethics is presented to the communities, but in rather abstract terms. – Analysis of the interview data with representatives of ethics committees in academic institutions led to the conclusion that these bodies are rendered rather narrow functions and lack institutional power in general. Hence, the bodies are not efficient in regulating research ethics in the organizations. – Results of a web-based survey in the national academic community highlighted the main problematic aspects related to research ethics: unclear rules and responsibilities, lack of knowledge, occurring violations and not transparent sanctions, etc. Additionally, some effects of institutionalized research ethics measures were revealed. RP Academic authorship: normative definition and empirical reality (AcadAu) (2013–2015) – Analysis of the definition of academic authorship and related issues on international level ended with scanty results which lead to repetition of the statement that unified European research ethics system is absent. – Analysis of the national legal and international organizational documents showed that, in addition to academic authorship being an object of authors' rights legislation, a ternary approach to the phenomenon can be traced in the organizational documents: (a) a disregarding approach, (b) a unified approach, and (c) an expanded approach. – Analysis of national (and international, but published in Lithuania) scientific journals requirements for authors suggests that the instructions lack particularity in many cases because the given descriptions of the review procedures do not clarify the essence

of the authorship concept. – Analysis of the interview data with editors of the academic journals published in Lithuania provided rich descriptions of the “gate-keeping” procedures and revealed the main obstacles for ensuring proper authorship (i.e. lack of funding) as well as the best practices in the field. – Results of a web-based survey among the members of academic community not only confirmed existing cases of different forms of violations, but also revealed existence of a multi-sided attitude towards academic authorship: traditional (or idealistic) attitude vs. attitude based on rational exchange, which can be either voluntary or forced (and with negative outcomes). A general conclusion to these RPs is that institutionalization of research ethics seems to be gathering speed because of the establishment of the Ombudsmen’s institution for Academic Ethics and Procedures. However, the process is rather slow. N. B. Both projects were of a national scope: all Lithuanian science institutions and research organizations were involved (i.e. document analysis, scientific journals, ethics committees, etc.). N. B. Methodology details, the main results and general findings will be presented in the poster.

Key words: academic authorship, ethics institutionalisation, research ethics, Lithuania

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ACADEMIC INTEGRITY IN MEDICAL EDUCATION: INTEGRATION ON THE SYLLABUS OF A HUMANITIES IN MEDICINE COURSE

Laura Ribeiro, Milton Severo, Maria Amélia Ferreira

Abstract:

Humanities in Medicine are being increasingly integrated in medical education, as a multidisciplinary field, concerned with the insight into human condition. The Faculty of Medicine of the University of Porto implemented in the 2013/2014 academic year a core curricular unit entitled “Humanities in Medicine” aiming the acquisition of transversal, humanistic and self-awareness competences and also the recognition of the peculiarities of the healthcare context. This curricular unit comprises an interdisciplinary program, including two seminars entitled “Ethics in Research” and “Academic Integrity”. Its assessment includes 5 multiple choice questions answered at the end of each seminar, 4 assignments chosen from a total of 12 seminars, an examination of History of Medicine and attendance. All the assignments were submitted to control of plagiarism using informatics tools. In this work we aimed to address the perception of freshman students about the use of plagiarism tools and how academic integrity issues were taught in the scope of Humanities in Medicine. Education towards the responsible conduct of academic behavior is critical, but if not done properly is likely to be of only modest help and ultimately ineffective.

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Key words: Academic integrity, Medical Education

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