Mendel University in Brno

ENAI

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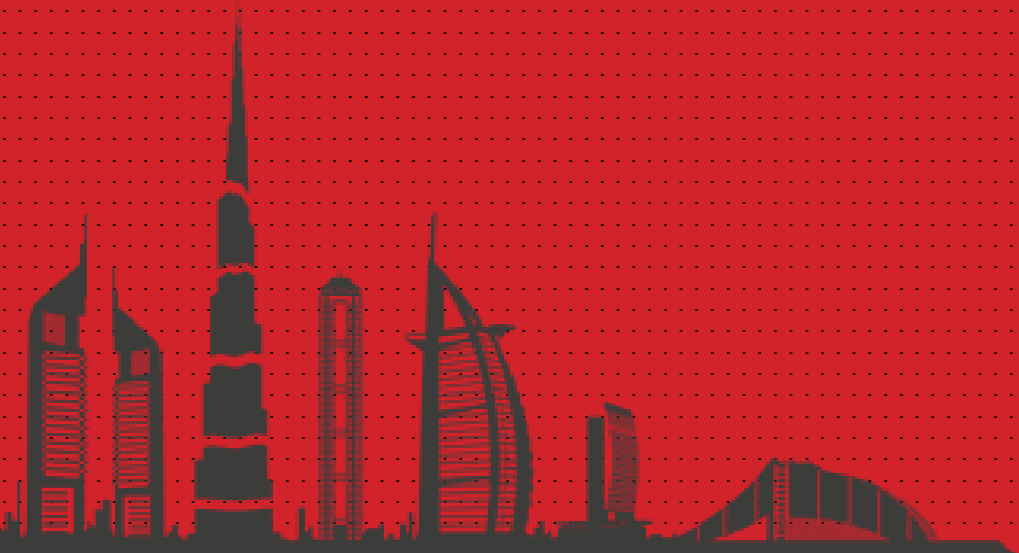
6th International Conference PAEB 2020 First Virtual ENAI Conference Conference Proceedings



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PREFACE

An initial call for abstracts yielded a significant number of entries from colleagues around the world. Participants were offered the options of presenting a paper, poster, or delivering a workshop during the conference.

All submissions were submitted online and were subsequently assigned to two separate reviewers. The double blind review process was transparent and consistent and all communcation was electronic. The process was managed by the conference technical chair and reviewers had no direct contact with the authors, or vice versa.

Initial reviewer judgements were made and comments were provided to authors, where amendments were required. The authors were then given ample time to make the required changes, and re-submit their absracts for final consideration.

Upon successful re-submission, the authors were informed of the final decision and asked to confirm whether they would be submitting a full paper for consideration in the post-conference publication.

Abstracts were then reveiwed and edited for format and are presented in this publication.

PAEB2020 witnessed two keynote speeches, two invited talks, one executive panel discussion, 48 regular paper, poster and workshop presentations and two post-conference workshops. We were supported by Turnitin, Studiosity, PlagScan, Epigeum – Oxford University Press and Urkund along with Dubai Tourism and SpringerNature and our partner campuses Gulf Medical University (Ajman) and the British University in Dubai.

The calibre of presentations, level of engagement via virtual platforms, discussions, debates and collaborations were unparalleled and exceeded expectations. For this we thank all delegates and supporters of PAEB2020 for making this virtual conference a grand success scientifically and as an event.

Dr Christopher Hill, Technical Chair, PAEB2020
Dr Zeenath Reza Khan, Chair, PAEB2020

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PAEB2020 Conference Proceedings

Keynotes

Leading by example: Reflecting on our own academic practice

Professor Tracey Bretag, University of South Australia, Australia

Academic integrity is a relatively new field of enquiry, with some of the earliest research on student cheating by Don McCabe and colleagues in the 1990s. In the intervening three decades, much progress has been made. We now understand that student cheating is a symptom of much wider systemic issues, and not simply the result of personal motivations or morals. Furthermore, academic misconduct is not confined to students, but can be found in all aspects and stakeholders of the academic community. As the field has matured, it is now time for academic integrity researchers and practitioners to take a good, hard look at our own academic practices. Do we demonstrate outstanding scholarship, characterised by generous and accurate acknowledgement of others' contributions to our own achievements? Do we place our own career aspirations ahead of reliable and trustworthy research, or worse, ahead of our relationships with students and colleagues? This keynote presentation will challenge audience members to reflect on their own practices – as teachers, scholars, researchers, collaborators, colleagues, supervisors, authors, editors, reviewers, presenters, conference convenors, grant applicants/assessors and social media commentators – and really consider whether we are 'leading by example'. It's time we stopped focussing exclusively on students' poor academic practices and started to take responsibility for being genuine champions of academic integrity.

Academic Integrity 2020 ± 20

Thomas Lancester, Imperial College London, United Kingdom

What will it take for academic integrity to be at the heart of the educational system? In this opening keynote presentation, Dr Thomas Lancaster reviews his personal journey as an academic integrity researcher and practitioner and speculate on challenges the academic community will face in the future, including the threats posed by developing technology and artificial intelligence.

Using examples from across his twenty years working in this field, Thomas suggests the challenges researchers were trying to address in 2000 could still be there in 2040, unless the academic community develops a plan of action. Many research metrics are moving in the right direction; for example, 2019 saw almost as many papers published on contract as the previous decade combined. But publications alone do not indicate that lasting change has occurred. In his keynote, Thomas discusses the need for the community to learn from previous research, to inspire the next generation of researchers and to complete meaningful and useful studies. Only by ensuring that the value of academic qualifications is upheld can the future happiness of all students be assured.

PAEB2020 Conference Proceedings

Invited Talks

Plagiarism in the time of Pandemic

Teddi Fishman, American Public University, USA

Abstract: How do we build and maintain communities of integrity in times of uncertainty, destabilization, and unprecedented change? How can we adapt our educational practices and learn to thrive in circumstances in which it is impossible to make reasonable predictions of the future that are based on what we've experienced in the past? What are the lessons of these times that we can use to inform our work as we begin the transition from what came before to our "new normal"?

This talk discusses the ways in which lessons from the pandemic can help us understand our work with academic integrity in new ways, and suggest that our experiences navigating uncertainty in the age of Covid-19 might help us develop new perspectives on and approaches to coping with academic integrity issues - issues which, though we might not be able to anticipate specifically, we nevertheless can prepare for and perhaps even develop the resilience to address.

ENAI Journey

Tomáš Foltýnek, Mendel University in Brno, Czechia

The European Network for Academic Integrity (ENAI) will soon celebrate its third birthday. However, the idea of ENAI emerged five years ago, and its roots go even further. The ENAI Board and Auditing Group are finishing their first tenure soon. The talk recalls the origins of ENAI, summarizes the first three years of ENAI's operation, and sketches future plans.

Three years ago, we had nine founding members, Erasmus+ funding, necessary infrastructure, a group of enthusiastic people, and a supportive social climate. Now, we have all of that and much more. The number of members has tripled; we have developed plenty of educational materials and other resources, established 12 working groups, and achieved international recognition of the academic community worldwide. All of this was possible thanks to the people who have devoted their efforts to ENAI.

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Executive Panel Discussion

Title: Integrity in Education for Future Happiness

This session highlights a variety of global perspectives on key issues facing education today. The panel will provide an opportunity for engaged and engaging discussion. The session will discuss a series of fundamental challenges to education today and explore the nature of integrity; how it translates across borders, cultures and systems; and how it is introduced, managed and taught in throughout the educational journey.

The nature and impact of technology in teaching, acutely under review today more than ever, will form the backdrop of this panel, and in particular, the extent to which it impacts integrity and ethics in both teaching and assessment. The panelists will further explore the above challenges in relation to the nature of happiness in education, for different stakeholders such as students, parents, teachers, governments.

Panelists :

- Dr Teddi Fishman | Program Director & Associate Professor | American Public University, USA
- Dr Tomas Foltynek | President | ENAI
- Dr Elizabeth Wilson | Director of Programs | Sheikh Saud bin Saqr al Qassimi Foundation for Policy Research
- Professor Mohamed Val Mohamed Salm | President | University of Wollongong in Dubai

Moderated by : Dr Christopher Hill – British University in Dubai

Session Chairs

1. Sonja Bjelobaba, Uppsala University, Sweden
2. Clare Johnson, University of South Wales
3. Sreejith Babasubramanian, Middlesex University Dubai, United Arab Emirates
4. Heili EInasto, Tallinn University, Estonia
5. Gabor Laszlo, National University of Public Service, Hungary
6. Ilze Birzniece, Riga Technical University, Latvia
7. Inga Gaižauskaitė, Lithuanian Social Research Centre, Lithuania
8. Jana Dannhoferová, Mendel University in Brno, Czechia
9. Evangeline Litsa, Mourelatos, The American College of Greece, Greece
10. Dita Dlabolová, Mendel University in Brno, Czechia
11. Shiva Das Sivasubramaniam, University of Derby, United Kingdom
12. Irene Glendinning, Coventry University, United Kingdom
13. Ann Rogerson, University of Wollongong Australia, Australia
14. Christopher Hill, British University in Dubai, UAE
15. Veronika Králíková, Mendel University in Brno, Czechia
16. Michael Draper, Swansea University, United Kingdom
17. Timothy Daly, Zayed University, United Arab Emirates
18. Anna Abalkina, Ludwig Maximilian University of Munich, Germany
19. Pavel Turčínek, Mendel university in Brno, Czechia
20. Zeenath Reza Khan, University of Wollongong in Dubai, United Arab Emirates

PAEB2020 Conference Proceedings

Sub-Theme: Combating Rising Threats from Essay Mills and Contract Cheating

PAEB_74

Organisation of dissertation mills in Russia

Anna Abalkina, Ludwig Maximilian University of Munich, Germany

Keywords: *Dissernet, dissertation, dissertation mills, plagiarism*

Abstract

Over past decades, extensive evidence has emerged on thousands of cases of plagiarised dissertations that were prepared by dozens of dissertation mills in Russia. Their organisational structure, as well as the high tolerance of plagiarism in Russia, have allowed the mills to develop their dishonest business with impunity. Dissertations have become a step towards career promotion and a luxury good for politicians and top managers. An identification and understanding of the activity of the dissertation mills would allow us to evaluate the main participants and their structure, as well as the defence mechanisms necessary for developing policy and taking further action to eliminate plagiarism from research.

Introduction

Plagiarism has become a more common form of intellectual misconduct in academic works (Weber-Wulff, 2014). The problem of plagiarised dissertations is growing due to the increasing number of doctoral students from developing countries (OECD, 2016), where the academic ethics standards are lower and the tendency to plagiarise is higher than in developed countries (Honig and Bedi, 2012). Russia is not an exception. Osipian (2012) has estimated the black market for dissertations in Russia by analysing 169 firms that supply ready dissertations for sale.

Due the activity of Dissernet, a voluntary network of researchers and journalists who expose plagiarism in dissertations in Russia, since 2013 nearly 10000 doctoral theses with considerable plagiarism have been detected. All these dissertations contain dozens of pages copied from other texts and sometimes they are even totally plagiarised. Dissertations have become one of the status symbols for politicians, businessmen, etc. A fake academic degree can also pave the way to career promotion (Rostovtsev, 2017). Most of these dissertations were produced in one of numerous dissertation mills in Russia. The Dissernet's database contains information not only about the fraudulent author of the fake dissertation but also about the university, supervisor, and reviewers and allows us to examine the organisational structure of dissertations mills and the ties among their participants.

Methodology

The Dissernet's database of plagiarised dissertations is updated by several methods.

- *Automatic check* for plagiarism in the long abstracts (*avtoreferats*) of dissertations. If two texts of *avtoreferats* that are open source and available online have considerable text similarities, then the dissertations also have a high probability of containing identical phrases or paragraphs. In this case, the dissertation which was defended later than the other dissertation is analysed for plagiarism.
- *Snowball method (institutional)*. This method is based on the hypothesis that if a professor has been noted as a supervisor or reviewer of fake dissertations, then there is a high probability that he/she also participated in the defence of other doctoral students with plagiarised dissertations. In this case, further checks of the dissertations of his/her doctorate students are performed. The snowball method is also applied in cases where several dissertations with considerable plagiarism are discovered to have been defended in front of the same dissertation council. The dissertations defended in front of the same dissertation council are inspected for plagiarism.
- *Snowball method (textual)*. If a dissertation under inspection is a text donor for other dissertations defended later, then the subsequent dissertations are checked and added to the database.
- *Analysis of social groups.* This method includes the examination of the dissertations of different social groups (school directors, rectors, etc.).

As of 2019, the Dissernet's database contained nearly 10000 dissertations with considerable plagiarism and other forms of academic misconduct.

Obtaining an academic degree in Russia

The academic attestation process in Russia is state regulated. There is a two-level degree system: the candidate of sciences degree that lies between the Western master's degree and Ph.D. degree and the doctor of sciences degree that is similar to the German habilitation. An ordinary dissertation defence involves reviews by the supervisor, two or three reviewers as well as a collective review by the university or research institute. The presentation of the research results of the dissertation is held at the session of the dissertation council of the university/research institute, which normally consists of 15-20 permanent members. The successful defence requires two third of the positive votes of the dissertation council members. The academic degree is then finally approved by the governmental Higher Attestation Commission, whereby the expert councils again review the attestation case of the degree applicant.

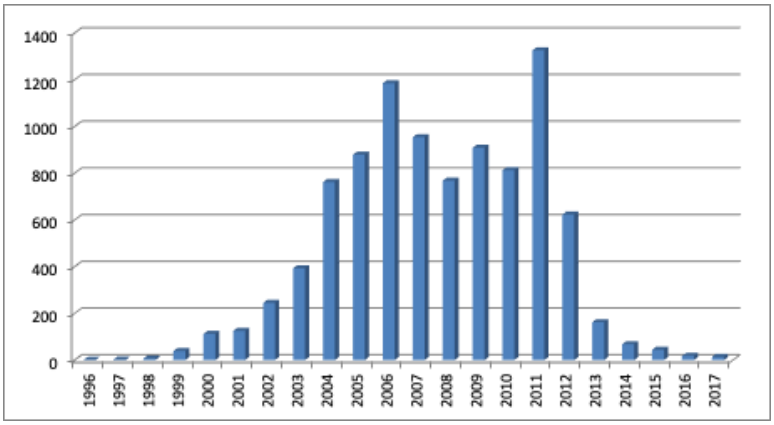
Despite the numerous mandatory reviews of a dissertation there is evidence of thousands of dissertations with considerable plagiarism and other types of academic misconduct. Such expansion of plagiarised dissertations can be explained by several factors.

- High tolerance of plagiarism. According to the survey, only 54.3% of university professors support the withdrawal of fake degrees in Russia (HSE, 2019).
- Lack of transparency. The detection of plagiarism by external scholars was limited due to restricted access to the long abstracts *(avtoreferats)* and manuscripts of dissertations before 2012 when the online publication of the long abstract became mandatory. In 2013

some amendments to the public regulation of the attestation process were made, according to which the text of the dissertation itself should be available online before the defence (The Russian Federation Government, 2013). Graph 1 demonstrates the frequency of fraudulent defences and their number decreases after the entry into force of the new regulation.

- Deliberate neglect of plagiarism in dissertations by the supervisor and reviewers due to corruption in higher education in Russia and participation in dissertation mills (Osipian, 2012).
- Withdrawal of fake academic degrees granted before 2011 being blocked due to the law and the limitation period for making a request to revoke a degree. More than 75% of dissertations with considerable plagiarism were defended before 2011 and are currently under the 'amnesty' of the law.

Graph 1: Frequency of plagiarism in dissertations in Russia (as of December 2019)



Source: Calculations based on data from the Dissernet database.

- Lack of independence. The presence of the same professors both on the dissertation councils and on the Higher Attestation Commission violates the independence principle and at the same time serves as protection for the author of a fake dissertation.

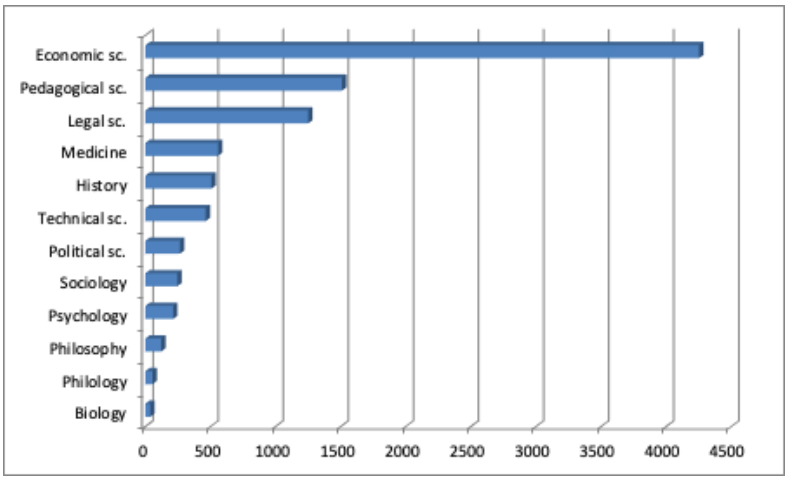
Results and discussion

Nearly 10000 dissertations with significant plagiarism were detected in Russia despite the fact that plagiarism is not allowed in dissertations in Russia (The Russian Federation Government, 2013) and that plagiarised dissertations should not be accepted for defence. The spread of plagiarised texts is associated with the lack of a system of checking dissertations for plagiarism during the 2000s, but members of the dissertation councils were also able to note cases of text recycling, especially when the reuse of the text happened on the same dissertation council. For example, this happens when text A was the source for dissertation B and dissertation B was in turn the source of dissertation C and all these dissertations were defended in front of the same dissertation council. Incorrect citations and plagiarism should certainly be noted by members of the dissertation council even in the absence of detailed plagiarism checks. For example, at one Russian university, we found at least 7 cases where

the dissertations in history had considerable text similarities with the dissertation of the supervisor without proper citations. The supervisor could not be unaware of the presence of his/her text in the dissertation of a doctoral student. In 9 other cases, the source of the dissertation was the scientific work of the reviewers.

The analysis of the network of plagiarised dissertations in Russia, especially in humanities and social sciences, which have a significant gap in accepted research methodologies in comparison with international science, gives evidence on numerous dissertations mills in the fields of economic, psychological, historical, legal, and pedagogical sciences. Economic, pedagogical, legal sciences represent more than 74% of all plagiarised dissertations as of December 2019 (Graph 2).

Graph 2: Distribution of plagiarised dissertations according to the scientific field (as of December 2019)



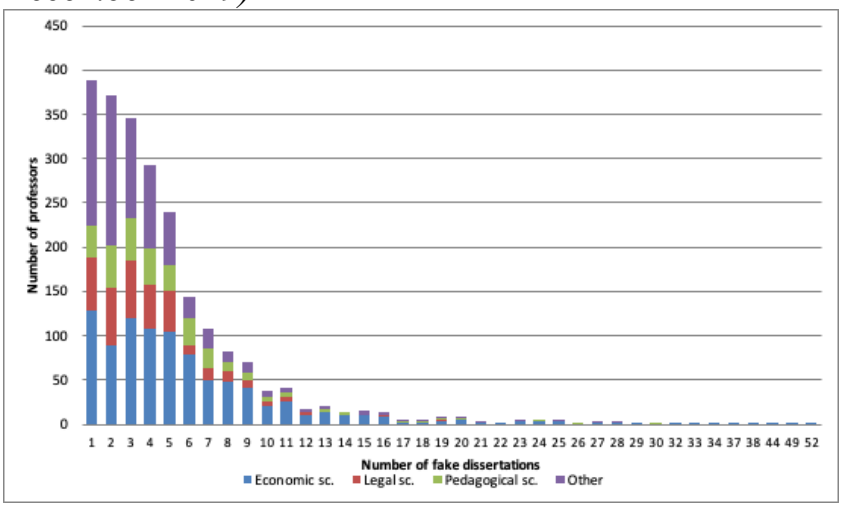
Source: Calculations based on data from the Dissernet database.

The six years of Dissernet activity and the collected data on academic misconduct in dissertations allow us to map the main methods of organisation of the dissertation mills'. We are interested not only in identifying the institutional structures of such an organisation but also the methods of protection (despite plagiarism being rampant, it is still a violation of both academic ethics and regulations) and the patterns of the activity of the mills, which would allow to identify and detect other cases of academic fraud.

Almost in every dissertation mill there is a leading organiser who attracts the greatest number of doctoral students. Such organisation of the network may not differ from the activity of a normal dissertation council, where there is a star scientist who attracts a large number of applicants for a doctoral degree (Abalkina, 2016). The difference is that the dissertation mill is characterised by the low quality of the doctoral theses, the presence of plagiarism and other forms of academic misconduct, a fraudulent process of defence and a lack of scientific discussion. Participation in dissertation mills creates specific ties among the mill's its members who jointly cover up the violation of scientific ethics.

As a rule, only a small circle of professors are accepted to supervise and review the fake dissertations. However, at the country level, the small circle of a dissertation mill turns into hundreds or even thousands of professors who participate in the defence of dissertations with considerable plagiarism. In Russia, 2264 professors in different scientific disciplines were supervisors or reviewers of at least one fake dissertation, more than 1800 professors supervised or reviewed 2 or more dissertations with considerable plagiarism (Graph 3). Most of the professors work in the economic, legal or pedagogical sciences. Economic sciences are the most corrupted, as at least 904 professors helped to defend from 1 to 52 dissertations with considerable plagiarism.

Graph 3: Participation of professors in the defence of plagiarised dissertations (as of December 2019)



Source: Calculations based on data from the Disseropedia of Russian higher education institutions (https://rosvuz.dissernet.org/).

Another finding of this study is that professors from different dissertation mills collaborate and organise one extensive network of plagiarised dissertations throughout Russian science (Graph 4). The reason for the close ties between the professors from various dissertation mills can be explained by the necessity to respond to the requirements of legislation. Dissertation councils have to search for individual external reviewers and organise collective reviews of a dissertation by the university or research institute. The data analysis showed that each dissertation mill has a number of organisations which most often give false positive reviews. In many cases it turned out that these universities are also dissertation mills. Moreover, dissertation mills often collaborate with each other in a more specific way. Dissertation councils exchange dissertation manuscripts for further text re-cycling and to provide greater legitimacy to the fraudulent defences.

There are also some other methods of collaboration that lead to the diffusion of academic misconduct in dissertations. Dissertation councils promote not only their internal doctoral students but also attract applicants from other organisations to ensure a successful defence. One of the most famous cases is the Standartinform dissertation council in Moscow, where two third of defended dissertations were from external organisations (Abalkina, 2017).

Graph 4: The network of authors of plagiarised dissertations and their supervisors and reviewers in economic science in 2016

The number corresponds to the quantity of fake dissertations supervised or/and reviewed by a professor.
Source: Visualisation based on the Dissernet database.

Authors of dissertations with considerable plagiarism reproduce plagiarism themselves: a total of 389 holders of fake titles, of which 189 were in the economic sciences, subsequently participated as supervisors or reviewers in the defence of a dissertation with considerable plagiarism.

Despite the consensus that there is considerable plagiarism at the dissertation council level, the risk of it being detected is still possible during further checks and reviews. Further protection is provided by the experts from the expert council of the Higher Attestation Commission. The data analysis showed that in many scientific disciplines the key members of dishonest dissertation councils are also members of the expert council of the Higher Attestation Commission and editors on the board of a scientific journal to ensure fast and non-peer-reviewed publications by the applicants.

Conclusion

The study of the network of plagiarised dissertations allows us to identify the main participants of dissertations mills, the patterns of their activity and their safeguards to search for new cases of academic misconduct and to elaborate policy measures and advice. However, the fight against corruption in higher education is mainly upheld by civic activists and meets resistance from the state as well as from a part of the scientific community.

Dishonest academic practices are diffusing because there is no professional ban on participants in dissertation mills and because dishonest professors reproduce themselves. Many holders of fake degrees remain and work in the academic sphere and develop their own “scientific schools” based on methods of academic misconduct.

An alternate scientific community that tolerates plagiarism has been formed in Russia. There is no professional ban after the disclosure of plagiarism cases (both for authored dissertation with considerable plagiarism or for participation in dishonest defence activities). Even in the rare case of dismissal, the professor can find a job at another university. Despite a significant reduction in the number of defences of fake dissertations, dissertation councils still impede the withdrawal of inappropriately obtained degrees.

Acknowledgements
I would like to express my gratitude to all experts and volunteers at Dissernet who made this project possible.

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PAEB_77

Will Law and Regulation change the behaviours of Essay Mills?

Michael Draper, Swansea University, United Kingdom

Keywords: *law, regulation, essay mills, behaviour*

Many strategies have been proposed to address the supply of bespoke essays and other assignments by companies often described as 'Essay Mills' with the act of supply and demand being invariably described as 'contract cheating'. These proposals increasingly refer to the law and regulation as a solution in common with other actions.

In this presentation the presenter revisits published work undertaken in 2016, as a result of recent legal and extra-legal developments in the UK since 2016, to determine whether there has been any change in the behaviours of Essay Mills.
It was previously found that all sites have disclaimers regarding the use of their products but there were some obvious contradictions in the activities of the sites which undermined those disclaimers, for example plagiarism-free guarantees for the work.

In this presentation I consider whether this is still the case with regard to the impact of a change in the law by the UK supreme court and recent action of the UK Advertising Standards Authority.

The key issue explored by this presentation is whether there is evidence that Essay Mills have, or will change their behaviour, as result of state and regulatory intervention.

This is a critical point given that the ETINED platform of the Council of Europe propose regulation in this area for the 50 member states of the Council of Europe: work that the presenter is currently engaged with. This presentation will consider the work of the ETINED platform address whether law and regulation will in the final analysis have an impact on the behaviours of Essay Mills.

PAEB_107

What are students doing and how to find it?

Ann M Rogerson, University of Wollongong Australia, Australia

Keywords: *academic integrity, contract cheating, detection, plagiarism, Turnitin®*

This aim of this workshop is to present, discuss and examine some of the ways academic integrity breaches in written assessment tasks can be identified, including and beyond text matching algorithms such as Turnitin®, and provide participants with ways of recording potential breaches of academic integrity for follow up and assessment.

Evidence of the types of breaches identified and explanations pointing to how they were identified, will be presented. The examples are based on studies of actual cases of contract cheating, which led to a categorisation of various types of markers or clues that can assist with detection. Understanding how the various clues and markers can be identified has been shown in internal institutional workshops, to improve levels of detection as individuals grading assessments have a clearer idea of what they are actually looking for (citation blinded for peer review; Dawson & Sutherland-Smith, 2018).

After presenting some of the observations, workshop participants will then have the opportunity to apply some of the methods and observations to samples of contract cheating papers. In addition, a method of simply recording observations complements the examination of samples while making information capture more efficient can be trialled. Explanations for how the simple documentation can assist in calibrating findings across a class or student cohort to identify teaching and form the basis of a document to initiate a discussion with a student.

The aim of the workshop is to improve understanding of how to identify potential instances of contract cheating, beyond a text-matching score by observing markers and patterns, while providing participants with practical ways of recording findings and preparing for exploratory discussions with students.

Identifying Irregularities

The patterns and clues found in cases of contract cheating that assist with the identification of cases are 'irregularities' that differentiate this work from the norms of a subject, course or discipline (*Citation Blinded for review*). Observing irregularities in submissions should prompt the reader/grader to 'dig a little deeper'. Methods of identifying how to source the basis of irregularities are modelled, with some examples available for workshop participants to explore how it applies in a practical way. While some instances of contract cheating can mirror poorly developed academic skills (Bretag et al., 2014), the key approach when

grading is to identify what is normal within a subject, course or discipline versus what is not.

Types of Irregularities

The workshop will present and discuss a range of different types of irregularities identified in written submissions and provide participants the ability to test documenting methods of identifying contract cheating in written submissions *(Citation Blinded for review)*. Examples of the patterns and clues observed and validated are presented as reference points for participants to explore how they appear in assessment tasks.

Recording irregularities for calibration and conversations

An easy method of recording observations during the grading process will also be presented to participants, in order to demonstrate an efficient way of capturing the patterns and clues while marking *(Citation Blinded for review)*. The form can then be used to calibrate results across classes or cohorts to identify patterns that may reveal issues that require further discussion to address misconceptions, or identify things that can improve further instances of a subject or influence the redesign of particular assessment tasks or support materials. A practical exercise using the method, will form part of the workshop so participants can practice what is being presented and discussed.

Using what you find to conduct conversations with students

The workshop goes on to outline ways of conducting conversations with students to explore the irregularities so that cases of academic misconduct can be distinguished from cases of under developed academic skills. The approaches can vary depending upon the irregularities found and the responses of the student, but at all times conversations should maintain the principles of fairness in due processes under institutional policy guidelines. Regardless of what outcome is determined, conversations exploring why the irregularities are present in the written work submitted for assessment, are unique opportunities to gain a deeper understanding of academic misconduct, and the struggles some of our students face when balancing education with real life. Conversations with students where academic integrity issues are evident also provide further opportunities for teachable moments (Bertram Gallant, 2017) setting students on a path to succeed in their studies or refer students to academic or personal support services.

Outcomes

Reporting evidence has demonstrated that understanding how to identify irregularities in written submissions improves the rate of detection of potential breaches of academic integrity including contract cheating instances *(Citation Blinded for review)*. By building skills in detection while providing an efficient and practical way of recording potential breaches for further follow up improves confidence in having one way of capturing contract

cheating instances as and when they occur.

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PAEB_108

De-emphasising Plagiarism in Academic Writing A Framework for Success

Daniel G. Dusza, Kanda Institute of Foreign Languages, Tokyo, Japan

Keywords: *CALL, Formative Assessment, Plagiarism, Spin-writing, TPACK*

Abstract

This workshop covers recent advancements in plagiarism assistive technologies and facilitates discussion about managing, learning from, and dealing with the reported rise of plagiarism and re-writing/ghost-writing services. A learner-centred, pedagogical solution for preventing plagiarism in student and academic writing is presented, then discussed. The aim of the workshop is to show how working with plagiarism can benefit learning and change behavior, more than merely providing explicit rules and plagiarism awareness. The integration of plagiarism awareness, online rewriting and plagiarism detection, and explicit instruction and implicit learning into the writing process are discussed. Two years of action research will be presented together with a selection of significant recent advancements in available technology, which either degrade or bolster academic integrity. This research indicates that punitive rules and explicit instruction are inferior to implicit understanding gained through effective/adequate training through production practice. In fact, working with third party information was found to benefit writing skill development and advance knowledge.

Introduction

The primary goal of most educators is to prevent plagiarism by teaching students how to avoid it. Avoidance includes paraphrasing, quoting, summarising, and correct referencing. This approach is reflected in most textbooks, reports, and syllabi, which 'teach' the many issues surrounding plagiarism, such as the types of plagiarism, how to avoid it, the consequences of being caught, and how plagiarism degrades the value and validity of educational research. Very little research is dedicated to the issues of instruction and the integration of 'good' writing practices into the writing process, practices that both enhance learning while avoiding plagiarism. It seems that punitive rules and threats have remained the only measures that are universally adopted. Most of the research literature, textbooks, and syllabi fail to provide any indication on how students or teachers should be taught, or better still, learn how to avoid plagiarism by changing the way we process and produce written material.

The approach presented in this workshop addresses the plagiarism problem through the integration of technology, pedagogy, and content knowledge (TPACK). While these three skill areas are often used in education, only a few know how these skills interract to enhance learning. In fact, the problem with the rise of online rewriting, and academic fraud is an

indication of how technology and knowlege can become a corruptive combination. By implementing covert formative assessment, together with making adjustments to assessment pedagogy, the negative influence that technology has brought into academic writing can be solved. The focus, therefore, needs to be shifted from measuring the final written product to measuring the work and efforts of the individual, that is, their ability to build new knowledge. The attention to pedagogy is crucial to learning for it helps us gain a better understanding of how teaching impacts on students' learning (Loughran & Russell, 1997).

Methodology

Participants in this workshop will first be introduced to a holistic definition of plagiarism. This definition considers plagiarism as using another person's work and passing it off as your own, with the particular intent to achieve a false academic evaluation, financial gain, and/or reputation. Referencing and quoting sources are no longer enough to establish integrity. However, referencing serves to respect the originator, and provide where the information was sourced (uOttawa, 2019).

Workshop participants will be asked to reconsider their past practices and become open to the solutions offered in this workshop:

1. Where do you work and/or where have you worked?
2. What were students required to do to check plagiarism?
3. What do teachers do to verify originality and detect plagiarism?
4. What training is provided for students about ethical writing during the writing process
5. What is your self-assessment of what you knew about preventing plagiarism at that time.
6. What do you know now?

After this workshop, participants will be asked to reflect again on these questions. The last question is of particular interest, because it will have changed significantly by the end of the workshop.

The second phase of the workshop will introduce recent ethical and less than ethical internet service providers (ISPs), apps, and websites that help not only with rewriting, but are they are effective in streamlining language learning, analysis, metalinguistic understanding, and writing fluency. These text manipulation ISPs have proven useful in providing grammar manipulation tasks, and alternative texts for creating test. However, they are also used to effectively conceal plagiarism. Therefore, a review of originality checking, and referencing ISPs will be discussed breifly to determine their strengths and weaknesses. Reasons behind the differences in originality reports will also be addressed.

Due to this variability, some effective pedagogical approaches will be presented. The first includes a forensic approach to detecting plagiarism through studying referencing inconsistencies. Then, an asynchronous covert approach using Google Docs will be presented. This approach is capable of collecting a wealth of information about learning,

and language manipulation skills. The final approach utilises the collective power inherent in most devices, to covertly collect data about students writing practices, and concealment methods of plagiarism (Vasilopoulos, 2018), and from this study, a framework for the future of academic integrity is offered.

Finally, the ethical considerations of adopting these methods are discussed. These considerations include the implications and ethical responsibilities of educators, publishers, government departments and ministries. This informed discussion will conclude the workshop.

Take away

Participants should leave this workshop with an informed knowledge of plagiarism; why and when it presents,the greatest threat, how it should be viewed within the learning context, the responsibility of technology in the whole scheme of academic integrity, and a firm understanding of where and how our pedagogical choices have helped create the problems. Therefore, the solution, which is offered through changing writing and assessment pedagogy, should be easier to present to our supervisors, schools, and governments. Therefore, in the future, there will be a return to focussing less on the writing and the paraphrasing of previous research, and more on the writer, what they have learned, the quality of what they have to offer (Wiwanitkit, 2011) to the body of knowledge, and the innovation they have developed.

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PAEB_114

Stylometric Comparison of Professionally Ghost-Written and Student-Written Assignments

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Keywords: *Commissioning; Contract-cheating; Essay-Mill; Ghost-Writer; Stylometry*

Introduction

In September 2018 the University of Northampton was advised by the Police that a student (hereinafter 'Student') had made a succession of payments to a named, well known and long established UK-based essay-mill during calendar year 2017, the period they were investigating for unrelated reasons. That period encompassed the latter part of the final year of Student's Bachelors (undergraduate) degree and first part of their Masters (postgraduate) degree. Also in September 2018, subject tutors were independently referring Student's Masters dissertation for suspected contract-cheating (Clark & Lancaster, 2006) due to its anomalously high quality in terms of both subject content and written English. Those circumstances led to a detailed investigation of Student's submitted assignments over the final year of their Bachelors degree and entire Masters degree. The outcome of that investigation and the associated formal hearings was that Student had committed extensive commissioning/contract-cheating over the two-academic-year period.

Following the conclusion of that investigation and all consequent University processes, the authors decided to investigate the portfolio of assignments in more detail as that portfolio offered the opportunity to investigate differences between known professionally ghostwritten work and (possible) student-written work, across the same range of subjects, in detail. The formal investigation had not required this depth of investigation owing to the sufficiency of 'headline' evidence and Student's inability to counter that evidence: the headline document properties are summarised in Table 1.

In Table 1 and associated text, Batchelors and Masters assignments are labelled 'L6' and 'L7' respectively, the two letters indicate the core subject matter and the number refers to first, second or third assignment as appropriate. Where known or strongly suspected, a ghost-writer flag is appended to the assignment identifier. Three assignments with essaymill identifiers are 'A1', 'A2', 'A3'; four assignments with other ghost-writer identifiers are 'B' (two assignments), 'C' and 'D'. The Masters dissertation, identified by subject tutors as ghost-written, is 'X'; and two other assignments showing strong evidence are 'Y' and 'Z'. It should be noted that Student was unable to offer any information regarding any of the names revealed in the document properties metadata and so it has been concluded that none of the names indicate a borrowed computer and all are associated with ghost-writers. It should also be noted that until the Masters dissertation, Student had been careful to commission assignments at second-class and equivalent grades, consistent with their higher

grades in previous years and thus not attracting tutors' attention at the time.

The aim of this investigation is to determine whether there are consistent stylometric differences between the use of English in professionally ghost-written and student-written assignments that could assist in evidence gathering in future contract-cheating investigations (Klaussner et al., 2015). The main objectives are to determine:

- whether any assignments of unknown provenance are grouped with known ghostwritten assignments, raising the possibility those assignments were also ghost-written;
- whether stylometric analysis identifies consistent differences between ghost-written and student-written assignments.

Method

The stylometric analysis (Eder, 2012) was performed using the R open-source statistical computing software (https://www.r-project.org/) using the Stylo (Eder et al., 2016), Sylcount and Cluster library packages. The corpora were prepared by removing footnotes and reference lists from the submitted assignment files and exporting redacted (e.g. student name and ID) plain-text files. All investigated assignments were between ca. 1,000 – 5,000 words in length except for the Masters dissertation (L7_DI3), at ca. 15,000 words.

Results and discussion

Paraphrasing the tutors' evidence (redacted) regarding the Masters dissertation:

- in terms of % similarity [Turnitin], there is very little in the text of the work other than common terms;
- the language/expression used is not that which I associate with the student;
- it has a fluency and maturity which is above that in [Student's] other work;
- the approach of not providing substantive introductions and conclusions to thechapters [...] runs counter to the approach that they would have been advised to take throughout their studies (UG and PG);
- the final section [...] is quite unlike the approach that they have taken with other work
- of theirs with which I am familiar, and not an approach that would be suggested.

The stylometric similarities among the assignments are summarised in Figure 1. Figure 1a is a consensus tree summarising clustering (cf. correlations) between frequencies of wordpairs (2-grams, 2-word phrases): in essence, the further along the arms the group-members diverge, the more similar they are. Analysis of frequencies of words and n-grams (cf. multiword phrases) was the primary analysis used, and is a widely used stylometric technique. The groupings are colour-coded and the three groupings in red, light green and light blue show the core consistent groupings revealed by this analysis. First (red), the two Bachelors dissertation assignments and the two main Masters dissertation assignments (i.e. not the proposal), implying authorship-in-common (ghost-writer 'X') for these assignments. Second (light green), two known ghost-written assignments (suffixed 'B', 'C') are grouped

with the two strongly-suspected assignments (suffixed 'Y', Z'), and a further assignment (L7_DI1, Masters dissertation proposal), implying a possible association between the two ghost-writers and an association between either (more probably 'B', see Fig. 1b) or both ghost-writers and the other three assignments. Third (light blue), the three known essaymill assignments (suffixed 'A') are grouped together with a fourth assignment (L6_SP1), which implies an essay-mill 'house-style' and also that the fourth assignment was very probably commissioned from the same essay-mill. The other two groupings (dark green, dark blue) are less consistent but it is probable that if any assignments are Student's own work then they fall into these groupings and, within that, more probably L7_CS1, L7_DM1 and L6_HR1.

Figure 1b shows the cluster dendrogram of assignments according to word-length (number of syllables) distributions, and is a more straightforward analysis than word (or n-gram) frequencies. In essence (a) the longer the vertical distance from where a cluster diverges from other clusters, the more distinct and (b) the shorter the vertical distances within a cluster from where individual members diverge, the more similar the cluster-members. Figure 1b is colour-coded according to Figure 1a, revealing that this straightforward analysis also shows many of the groupings revealed by the primary analysis, particularly the core elements of the two strongest clusters, i.e. the three identified essay-mill assignments (suffixed 'A') and the two strongly-suspected assignments (suffixed 'Y', 'Z'). Analysis of this type is more straightforward than readability-type analysis and can be less sensitive to 'pseudo sentences' such as headings and bullet-points associated with different assignment types.

The reason for the lack of association between the two assignments with author-name 'B' in either analysis is unknown but is tentatively attributed to two ghost-writers using the same computer or same ID.

Conclusion

The immediate conclusion of this research is that in addition to the eight assignments known to have been contract-cheated, the stylometric analysis confirms the strong evidence initially identified in two assignments and also strongly implicates further assignments. This is statistical evidence, not proof, but does serve to give a fuller picture of the likely scale of Student's commissioning/contract-cheating activity.

More generally, this (ongoing) research has demonstrated that, in some circumstances at least, ghost-writers can be linked according to essay-mill house-styles. Also that ghostwriter writing styles can be distinctly different to a student's writing style. In summary, this research has revealed that professional writers use English more correctly, consistently, concisely and precisely than the students who commission them, as might be reasonably expected, even if 'dumbing-down' to imitate relatively weak student presentational style.

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Ethical Statement

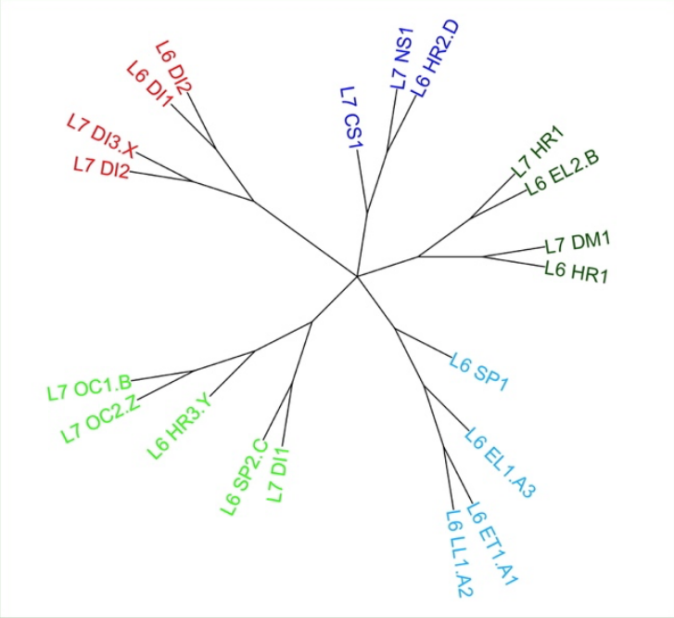
The module and assignment names and codes, and the names of Student, the essay-mill and ghost-writers have been redacted in accordance with the ethical approval given by the University of Northampton Research Ethics Committee in September 2018.

Table 1. Key Document Properties from Formal Investigation.

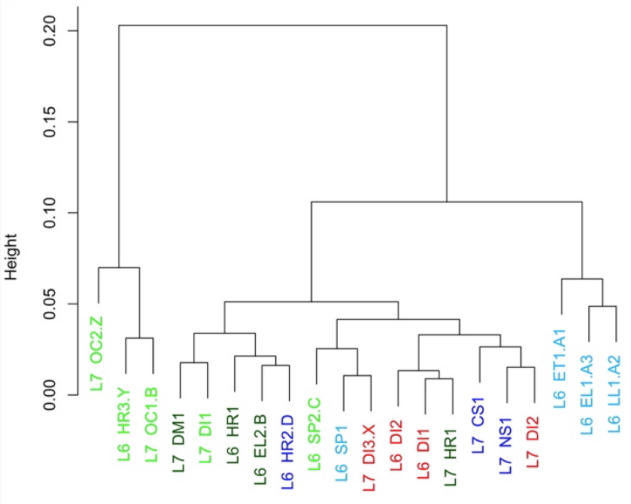
Assignment Identifier	*Ghost-Written*	*Ghost-Writer Flag*	*Doc. Type*	*English Variant*	*Page Size*
L6_EL1	*Yes: essay-mill ID*	*A3*	*docx*	*Australian*	*A4*
L6_EL2	*Yes: author name*	*B*	*docx*	*UK*	*A4*
L6_ET1	*Yes: essay-mill name*	*A1*	*docx*	*UK*	*A4*
L6_HR1	*Unknown*		*docx*	*UK*	*A4*
L6_HR2	*Yes: author name*	*D*	*docx*	*US*	*A4*
L6_HR3	*Strong evidence: hacked xml doc. props.*	*Y*	*docx*	*UK*	*US Letter*
L6_LL1	*Yes: essay-mill ID*	*A2*	*docx*	*US*	*A4*
L6_SP1	*Unknown*		*docx*	*US*	*A4*
L6_SP2	*Yes: author name*	*C*	*docx*	*UK*	*A4*
L6_DI1, L6_DI2	*Unknown*		*docx*	*UK*	*A4*
L7_CS1	*Unknown*		*docx*	*UK*	*A4*
L7_DM1	*Unknown*		*docx*	*UK*	*A4*
L7_HR1	*Unknown*		*docx*	*UK*	*A4*
L7_NS1	*Unknown*		*docx*	*UK*	*A4*
L7_OC1	*Yes: author name*	*B*	*odt*	*UK*	*A4*

L7_OC2	*Strong evidence: basic presentation*	*Z*	*docx*	*Canadian*	*US Letter*
L7_DI1, L7_DI2	*Unknown*		*docx*	*UK*	*A4*
L7_DI3	*Yes: tutor identified*	*X*	*docx*	*UK*	*A4*

Figure 1: Cluster-Analysis – Stylometric Groupings of Assignments.



(a) Grouping according to 2-gram frequencies.



(b) Grouping according to word-length distributions.

PAEB_118

Plagiarism from a Digital Forensics perspective

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Keywords: *Cheating, Copying, Detection, Forensics, OOXML, Plagiarism*

Plagiarism and contract cheating are serious academic issues that 'undermine the integrity of education' (Bretag, 2013). There are a number of tools that can help assessors detect plagiarism – particularly where text has been copied and pasted: Turnitin (https://www.turnitin.com), PlagScan (https://www.plagscan.com) and Urkund (https://www.urkund.com) are examples of such tools. The providers of these tools are also developing authorship tools that use stylometrics and linguistics to determine matches between authors (whether the submitting author, or a third party). It is also possible for an assessor to copy passages of text and paste them into a Google search (or similar) with quotes surrounding the passage to see if there are any immediate online matches.

In a previous paper "Using digital forensic techniques to identify contract cheating: A case study" (Johnson & Davies, 2019), the authors began using digital forensic techniques to see if it was possible to detect contract cheating. In that paper, consideration was given to how a student would typically assemble an original submission, through multiple edits and rewrites, and how forensic techniques allow review of those edits through examining the Open Office extensible markup language (OOXML) format of the document and thus identify flags for unusual behaviour.

Other research into the application of digital forensics using the OOXML approach include the use of digital forensic techniques for identifying copyright issues (Fu, Sun, Liu & Li, 2011) and intellectual property (Jeong & Lee, 2017), though the latter requires access to the entire file system of the computer where the document was created, and Xiang, Sun, Liao & Wang (2016) who discuss the use of extensible markup language for transmission of secret information. (Jeong & Lee, 2017). As (Didriksen, 2014) notes: "it is desirable to connect the actions performed, e.g. editing the document, to a specific physical person or several people" when carrying out a digital forensics investigation, as this permits investigators to attribute certain actions to specific users. Thus the authors of this paper wonder if these features might be useful in attributing ownership of a student submission.

Research aim and objectives

This object of this paper is to explore the use of OOXML to see if there are other flags or features that might raise suspicion that a piece of work has not been created in an authentic way and hence may be plagiarised or contracted. Specifically, the research aims to:

1. Describe various stylistics features of OOXML;

2. Analyse which features of OOXML may be useful in determining the authenticity of a document;
3. Determine the extent to which forensic analysis of these features can help determine originality.

Methodology

Two documents were created. The first document ('originalwork') was created by opening a new blank Word document and typing in two original paragraphs of text and making some minor edits. The document was saved, one word was highlighted in bold, and then was resaved. The second document ('plagiarisedwork') was created by opening a new blank Word document, copying text from a Wikipedia page and pasting it into the document, followed by some minor formatting changes (removing bold and hyperlinks). This allowed the authors to compare the two pieces of work. Copying and pasting text from the Internet is sometimes known as 'patchworking', where students take passages of text from the Internet and build them into a submission, without giving adequate credit (Kumar, P. M., Priya, N. S., Musalaiah, S., & Nagasree, 2014).

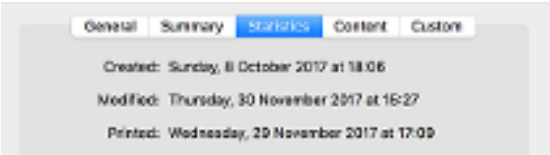
OOXML format

As discussed in the previous paper by Johnson & Davies (2019), Microsoft Word uses 'Office Open XML Format' (OOXML), where a document is created from a combination of other underlying documents. Much like a film is made up of many scenes, then has music special effects and credits added, and is finally packaged up into a single item, a Word document (docx) is made up of a number of other files, compressed into a single package.

The Open XML format has been around since Microsoft Office 2007 and was designed to bring a number of benefits to individuals, organisations and developers. These benefits include improved damage recovery because the separate components of each document are stored separately, meaning that if one component is damaged it may still be possible to open the file; better privacy and control over personal information, because sensitive information can be more easily identified and thus removed if required, and more compact: it is this feature that we can take advantage of when carrying out a digital analysis of the file (Microsoft, 2019).

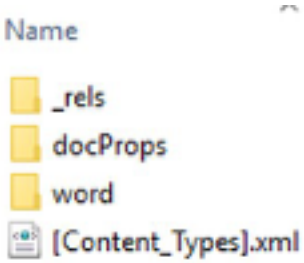
It is simple to review the document properties of a file when opened. This information can be found under the **File** menu by selecting **Properties** and then the **Statistics** tab (Fig. 1) (depending on Word version), although this data is not always reliable. Instead, looking inside the packaged contents of this document can reveal much more interesting data about the file and the way it was created.

Figure 1: Document Properties panel



To look inside the compressed docx file (or package), it first needs to be decompressed, by changing the extension of the file from .docx to .zip, and then choosing Extract, or Unzip (depending on your system). Opening the folder that is created then reveals a series of subfolders: rels; docProps; word and a single file [ContentTypes].xml.

Figure 2: Decompressed docx file



The **[Content_Types].xml** at the root of the folder contains a list of the content types of the parts within the package. The **_rels** folder tells Word how the parts relate to each other and to resources outside of the package.

Within the **word** folder, we find the following content as a minimum: _rels, theme (folders); document.xml; settings.xml; styles.xml. The file containing most of the content is the **document.xml** file, and this is the file focused on for this paper. The **document.xml** file is the main xml file for the document and includes the document's content and run identifiers. These run identifiers (RsiD tags) indicate how the document was built by placing each and every edit inside a tag, or 'run'. In the previous paper by the authors, a detailed review of the run identifies was carried out.

Flags for plagiarised work – Discussion and Results

Reviewing both revealed some interesting forensic artefacts which were considered worthy of investigation. Inspection of the document.xml file raised a number of suspicious flags.

Code inside this xml file tells Word how to render the document when displaying it on screen. Styling is defined within a <w:> namespace, which is developed by adding a relevant element. For example <w:document> tells Word that it is looking at a Word document; whilst <w:body> represents the body text of the document. A genuinely created Word document

yields a number of typical xml instructions, but in the samples some anomalies were detected. For example, the <w:cs> element refers to complex script, i.e. information about the font being used. In original work, typically a maximum of one font attribute appears within the <w:cs> tag e.g. <w:rFonts w:eastAsia="Times New Roman">, unless the passage where it appears is part of a field entry (e.g. Table of Contents entry) or the font has been changed (i.e. not default). However, the 'plagairisedwork' file includes multiple font attributes: <w:rFonts w:ascii="Arial" w:hAnsi="Arial" w:cs="Arial"/>,. In addition, there are multiple font elements which may be unusual for original work e.g. <w:sz> (which relates to font size) and <w:shd> which relates to background shading. The <w:shd> tag denotes that a shadow (background) has been applied to the run. In 'plagiarisedwork', there are runs where the shadow is set to white, indicating that this section of text previously had text shading of some kind that needed removing. Text created within Word itself would already have a white or null background shadow, so the appearance of this command would suggest that the text had come from elsewhere.

Figure 3: Extract of xml showing <w:shd> tag
<w:shd w:val="clear" w:color="auto" w:fill="FFFFFF"/>

Other tags of interest

Other tags and elements within the various documents reviewed yield similarly interesting results. The appearance of <w:NormalWeb> in some examples suggests text copied from the Internet, as does the inclusion of <w:webHidden> as this does not appear in an originally created document.

Limitations

As with many digital forensics techniques, these flag can only act as indicators. There may be genuine reasons why a document includes such flags – perhaps a student has used an online grammar tool to check their work, and downloaded an amended version for submission. Or perhaps they emailed the work to themselves. Information may have been copied from the Internet, but referenced properly, in which case analysing the flags in conjunction with the text itself is vital. These methods are also dependent on the student submitting the assignment as a word.docx file, and not a PDF or other format.

Conclusion

It is often possible to identify plagiarism through the use of text matching software, or by using search engines to find suspicious paragraph of text. However, by changing a single word, or by patchworking, students are able to outsmart tools like Turnitin and PlagScan, and to render any online searches unsuccessful. Reviewing the xml of the submission does not enable an assessor to categorically state whether work is plagiarised, but it is another option

in the toolkit for highlight ingflags which may be indicators of plagiarised work. The authors believe that there is much more that can be done in this area, perhaps developing tools which review the xml format in greater detail.

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PAEB_122

A discussion of potential institutional responses to the issue of blackmail and disclosure in contract cheating

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Keywords: *Academic Misconduct; Blackmail; Contract Cheating; Integrity; Policy*

Synopsis

Within this presentation the issue of blackmail associated with contract cheating is examined. Drawing on recent research completed by the authors, we examine possible institutional responses to the issue of blackmail, including potential approaches to be taken on receiving a disclosure from an affected student.

Contract Cheating

'Contract cheating', a term coined by Clarke and Lancaster (2006) describes the situation where a student procures another party to complete work on their behalf, which is then submitted without adequate acknowledgement of the source. Contract cheating transactions pose a significant risk to academic integrity and the assurance of learning, which places the perceived or actual quality of an institution's graduates at risk. In turn, this weakens the level of trust accorded to the sector more broadly. There is evidence to suggest that contract cheating is a globally recognised academic issue (Bretag et al., 2018), which may be increasing in scale (Newton 2018).

Blackmail

Blackmail constitutes a coercive arrangement involving two aspects: a proposal, and an agreement (Galoob, 2016). The proposal constitutes a threat that information will be revealed; the agreement defines the conditions under which the threat will be withdrawn. Blackmail occupies a contested space in law (Berman, 2011), in that it is arguable that a public good is served when undesirable activities are exposed. However, any sense that the process of blackmail follows a defined trajectory should be dismissed since it is possible that *neither* party will behave according to the 'deal': a blackmailer may still reveal information despite having received a payment, or a recipient may attempt to counter the blackmailer.

Within the United Kingdom, the issue of blackmail associated with contract cheating was identified by Lancaster (2016). Within Australia, the spectre of blackmail was given prominence when the Chief Commissioner of Australia's national regulator (Tertiary Education Quality and Standards Agency) identified the issue within his keynote speech at the TEQSA Conference 2018. More recently, two Australian

researchers (Sutherland-Smith & Dullaghan, 2019) identified that participants in their study had anecdotally reported that blackmailers had threatened to reveal student identities to their institution unless money was paid.

Students' experience of blackmail

Research conducted by the authors (under review) examined students' knowledge and experience of blackmail, identifying that the 587 participants in a single-institution sample were largely unaware of the existence of blackmail. Unsurprisingly, the prospect of blackmail was seen to be a source of considerable stress and anxiety. Drawing on this research, we suggest that there are at several possible student responses to the potential or actual threat of blackmail. A student may:

i. Choose to disclose to the institution even if there has been no actual demand made from a potential blackmailer;
ii. Contact police or a lawyer, rather than the institution. (Under certain jurisdictions existing or proposed legislation may serve to make contract cheating an offence);
iii. Attempt to re-negotiate a deal to secure a less expensive outcome;
iv. Choose to ignore the request, in the hope that the blackmailer would not follow through with the demand;
v. Simply pay the request (which may lead to further requests for payment);
vi. Disclose the issue to the institution, despite the risk that this might pose to their academic progress.

Institutional responses to blackmail

Possible institutional responses to the problem of blackmail involve prevention and treatment. With respect to prevention, suitable training could be incorporated into programs for both students and staff to raise levels of awareness, which may act as some form of deterrent. The actions that an institution might take in response to an instance of blackmail span two areas, the first being pastoral support, the second relating to the issue of how the academic penalty and re-assessment of the learning outcomes is managed. Pastoral support is relatively straightforward, and involves establishing counselling, support, and advice from university or student assistance groups.

The key question, to be explored within this presentation, is how an institution should respond to a disclosure, and specifically how the student academic result should be treated. This second question is not trivial, and a number of possible institutional responses to the academic treatment for the issue of blackmail are examined below.

It is acknowledged that across (and occasionally within) institutions, different penalties are applied to cases of contract cheating (e.g. mark reduction, zero marks for assessment item,

zero marks for unit, unit annulled due to misconduct). For the purposes of this discussion, the penalty of an annulled unit is taken to be a conventional outcome of an instance of contract cheating, although we note the observation by Harper et al., 2019 that penalties for contract cheating may be comparatively lenient.

Amnesty

One aspect to consider is whether the student has come forward voluntarily or whether they have been identified by a blackmailer to the institution. An amnesty may be seen as a method to encourage students to come forward (even if they have not been subjected to blackmail) but this raises issues of equity, which are examined below. However, the notion that a lesser penalty could be accorded to those that come forward is a suggestion worthy of further examination.

Maintain standard penalties

One possible option is to ensure that the standard penalty for contract cheating continues to apply. In the case of a unit annulled due to misconduct, this penalty would be applied, irrespective of whether the student voluntarily disclosed or not. Whilst this approach is consistent, it is unlikely to encourage students to come forward unless they are seriously concerned about the prospect of blackmail or are experiencing considerable stress from being blackmailed.

Variation to the standard penalty

An alternative to the standard penalty approach would see a lesser penalty applied in cases where the student had come forward voluntarily. This approach may help 'shift the balance' to favor proactive action on the part of the student. To illustrate, if the standard penalty for cases of contract cheating is an annulment, then an alternative may be to award a fail grade for the unit of study within which the misconduct occurred. The difference may appear to be insignificant on first reading, but an annulled grade would usually be accompanied by a narrative on an academic transcript to explain that the grade was annulled due to misconduct, whereas a fail commonly receives no such annotation.

Repeat the assessment

A failure of the unit of study (whether caused by an annulment, a zeroing of marks, or a depletion of marks to a point where the unit is considered to have been failed) will lead to the need for the unit to be retaken. This raises two issues. Firstly, if the assessment tasks are largely or wholly the same, then the student has received a considerable advantage in having acquired the material from the contract cheating source. This material then supports the

second iteration of the assessment task, giving the student an advantage which is arguably unfair. Given that assessment reuse is commonplace, this issue is significant (Brimble, 2016).

The second issue concerns the matter of cost. If the unit of study is repeated, this has a cost to the student. The cost of repeating the unit serves as a barrier to voluntary disclosure, and the issue then becomes a cost/benefit exercise to compare the cost of repeating the unit versus costs of paying the blackmailer. The suggestion that a repeat unit might be discounted in terms of cost is highly problematic: whilst it solves the issue of lowering the barrier to disclosure, it is immediately unfair to those students who have studied the material without cheating and simply failed.

Concluding remarks

It is clear that there are a number of issues to be considered in determining institutional responses to the issue of blackmail and voluntary disclosure by students. There is a considerable danger in creating a situation whereby the bar to contract cheating becomes lowered, if responses to voluntary disclosure are inappropriately configured. Within this discussion we have highlighted the issue of equity with other students who have failed without cheating, and there is a powerful argument for maintaining a 'parity of response' with this group. Finally, it would be a truly ironic and highly unfortunate outcome if the prevalence of contract cheating increased as a response to new policy positions on blackmail and voluntary disclosure.

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PAEB_131

Empowering Drivers that Ignite Change:Partnering With Students In A Collective Effort To Counter Contract Cheating Through The IDoA

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Keywords: *Academic Integrity campaign, contract cheating, international day of action, student leaders, student-faculty alliances*

RESEARCH AIMS & OBJECTIVES

The International Day of Action against Contract Cheating (IDoA) has witnessed increasing interest since it was initiated in 2016, with the purpose: to educate campus communities about the growing threat of contract cheating, and to achieve local and global impact - at educational communities, governments, and all citizens - by raising our voices in unison against it. The social media exposure achieved through promotion of the day/its events provides the medium for voices raised against its growing threat. The ideas and activities spawned on campuses globally are particularly telling examples of the kind of engagement academic communities have achieved in an effort to better advance a culture of integrity at their institutions.

The purpose of this workshop is to develop awareness of good practices being implemented around the IDoA. The session aims to:

- overview early results of the initiative as a promising and growing proactive strategy towards advancing academic integrity values more generally and combatting contract cheating particularly;
- reveal why/how any institutional effort advancing the initiative needs to create diverse partnerships, but place students as its most central partners and 'drivers'
- help participants explore and generate strategies on how to address commonly shared challenges in organizing an IDoA, e.g. initiating collaboration with potential institutional partners to coordinate an institution-wide event; engaging constituents

It is hoped that participants will take away a vision of how to cultivate an integrity culture change having evaluated sufficiently students' more creative and impactful role.

Those who serve in pertinent roles to advance academic integrity initiatives at their institution (whether as part of an AI office or not) especially representing institutions which may not yet have registered for the IDoA but intend or hope to do so in future are the anticipated, direct audience of this workshop. However, any individual interested to gain an overview of challenges and successful outcomes related to the IDoA can clearly benefit from attending the session.

The presenter will share her experience, both as the key member at her institution organizing such events, but also as a member of the ICAI 2019 IDoA Committee, leading IDoA event organization with hope of advancing participation.

METHODOLOGY

The workshop will encourage audience participation through use of an audience response system and attendees' smart phones. Those attending will respond to prompts highlighting factors integral to organizing an IDoA [e.g. constituents' attitudes; what happens when centralized support is lacking] (~5 mins), inviting reflection and group discussion to address challenges identified - particularly regarding forming alliances with various stake-holders to advance a collaborative campus effort (10-15 mins). The session also shares the presenter's institution as case study of challenges and successes faced over three years of IDoA participation – showcasing particularly students' creative resourcefulness and how they depicted a celebration of academic integrity values that resonated with students and educators alike (10 mins).

A brief comparative overview of what the initiative has ignited globally since 2016 as significant 'solution' will be presented and how sustained commitment to combatting contract cheating is becoming more visible, impactful, empowering. A good deal of the IDoA success achieved by many institutions globally is already documented online. Selections presented:

- mining of social media (particularly Twitter), assisted by the movement's use of hashtags (#defeatthecheat and #excelwithintegrity) (post 2018 IDoA – Feb.2019);
- website visits of HEIs, which search engines reveal as showcasing IDoA activities (post 2018 IDoA – Feb.2019);
- assumed results from the incremental organizational and promotional steps taken by the specially formed ICAI 2019 IDoA Committee (materials creation, webinars, etc.)
- observed and recorded changes in student and faculty perceptions and motivation over three years of conducting IDoA at the presenter's institution (cf Mourelatos, 2019)

Published research on contract cheating is limited, particularly in relation to solutions – even when exploring more traditional ones involving detection and punishment. In a recently created themed collection on the topic in a highly respected journal, in fact, alongside the few existing articles on various topics spanning fifteen months, opportunity for topics to be explored in-depth "and from multiple perspectives, so that meaningful responses and solutions can be instigated" as its Editor-in-Chief notes (Bretag, n.d.) reveals no writing on a proactive and positive stance, as afforded by the IDoA's call to action.

Publications focusing on AI campaigns more broadly – although also infequent - were sought out if they highlighted students as agents in such promotional campaigns but bypassed if

they encompassed the more traditional scope of students as passive recipients of information.

Finally, at the presenter's institution a distinct limitation is that no empirical evidence on attitudes or perceptions exists. It is by way of observation, images, video capture and testimonial (as well as some internal data unable to be shared) that impact is evident.

RESULTS & DISCUSSION

The first article on contract cheating appeared in the Chronicle of Higher Education, depicting a clear threat by an individual who wrote "our students papers" (Dante, 2010). The article became the most widely-viewed in the forum's history. Some readers were intrigued, most – horrified, but many were left quite uncertain what to make of the thus far covert phenomenon. Today, international headlines on contract cheating have become common place, with the industry estimated as involving disconcerting numbers of student clients (potentially ~15%) (Newton, 2018), contractors, and surpassing an estimated one billion dollars (Lancaster, as qtd. in Gikandi, 2020). Apart from traditional scopes discussions take (e.g. cheater's psychology; commercialization of education; the contact cheating industry as a 'response' to that commercialization) the effort to devise and act on effective strategies is generally compared to an uphill battle in this ever-evolving and pernicious industry.

The threats contract cheating poses to the education sector have been polarizing individuals for years – within and outside of the academy - on how to act or the *purposefulness* of acting to thwart it. Among a few of the scopes frequently addressed in the academic research and popular press regarding this intentional and most flagrant form of cheating are how it devalues learning/a degree's worth, compromises institutional reputations, decreases society's faith in higher education, and demands accountability.

One boon over the past few years, however, is the strong positioning of governments and qualifying agencies (TEQSA – Australia; QAA – U.K.; CHEA – U.S., among the largest). Another boon, argue others, is the creation of artificial intelligence solutions to help catch the cheaters. Can we not hope to address the issues more amongst ourselves - directly?

In particular areas globally, there may even be additional challenges handicapping the ability to address contract cheating – especially when attitudes towards cheating within certain regions depict what is seen as a more general social commentary concerning levels of corruption (Lancaster et.al., 2019).

It is in this and other ways, likely, that when students become vocal in their responses to issues revolving around contract cheating – as through a campaign – that they may feel they are able to play an important role – impacting understanding and response to a *social* problem. Positing contract cheating as a social issue, in fact, Khan et. al. (2020) examine how IDoA campaigns achieve similar outcomes to other socially focused campaigns (from alcohol abuse, health issues, even death) and serve as important tools to increase

understanding of incumbent factors, raise the integrity culture of an institution, and identify the positive role students play in influencing peers. It seems of little surprize then that students feel proud when involved in such efforts.

We can take this position one step further, posing the question: what predicted degree of success is possible when faculty-institutional synergies are created with students and students are given the opportunity to lead initiatives? A common pattern within research depicts the need for faculty and staff to work in partnership with students and to have them take active/major roles, as advocates or champions, in AI conversations (Piascik & Brazeau, 2010; Lancaster et.al, 2019). Rather than continue serving the traditional role assigned to them by the organizational-culture as passive recipients of change initiative, Richards et.al. (2016) call for students to be the 'drivers.' Serious topics might also then be explored in a non-traditional manner, engaging others in the unexpected, as we often hope and aim to do with our own teaching and learning contexts. Simulations and games can thus be added to the possibilities of media used to inspire and motivate as part of a learning opportunity, or … campaign (Stoesz, 2018).

A few short months ago, a call was issued by a prolific writer in the academic integrity circle for potential researchers to begin filling the void of what she referred to as the "research desert" in student integrity leadership (Bertram-Gallant, 2019). To the list she provides of potential areas for research by those looking for fertile subjects, I would include examining whether student leaders:

- have a significant impact on perceptions of cheating?
- can potentially impact academic misconduct – as intent and behavior?
- Have a short? Or long-term impact? on other students? instructors? What about on the leaders themselves?

Finally, at the presenter's institution, examining her college as a case study, the three years of participation in the IDoA witnessed remarkable changes in how students spearheaded initiatives, came up with brilliant creative activities, and impacted their peers as well as instructors/staff etc. Year one (2016) serves as the only exception since many institutions seemed not to be sure how to move ahead and so just completed the whiteboard pledges.

MAIN CONCLUSION

Campaigns are great ways to start conversations among ourselves and with students, about key issues.

Institutions are not buckling under the challenge of addressing the complex issues behind contract cheating; instead, they are coming together to act, constituting the best 'buy in' and engagement of the community - particularly of its most significant constituents: the students.

One expected outcome of the IDoA is that more institutions will continue participating in

the initiative. Effective activities have been produced to support the purpose behind the IDoA, as mining through social media reveals. Whatever the capacity and given context of each institution, the initiative is growing, is potentially very powerful, and showcases great - creative – ideas.

The evident but unique benefits accrued of recruiting student advocates and positioning students as leaders of the initiative needs to be centrally maintained. There can be more exploration whether a paradigm shift should be sought – involving students holding the creative reigns more, so as to pass messages that resonate with students as well as with faculty, and to potentially have a stronger impact on altering attitudes toward contract cheating.

Participants' sharing their experiences and views in the workshop may help generalize further recommendations to be made concerning future organizing of the IDoA.

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PAEB_136

Academic Integrity Strategies: Positive, Preventative and Punitive

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Keywords: *academic integrity; contract cheating; originality; plagiarism; student success*

This poster will focus on three key strands – positive, preventative and punitive – as part of encouraging academic integrity and avoiding the use of plagiarism at the University of Leeds.

The first centres on developing a positive environment which encourages students to study with integrity. This is necessary to ensure that students understand what is meant by 'academic integrity' and 'good practice' and to foster a sense of pride in being able to demonstrate this at undergraduate and postgraduate level. Looking at recent research (Bretag et al, 2019; Harper et al 2018), we will examine positive teaching strategies to enhance good practice and promote student success. After all, these positive values, skills and behaviours are not only appropriate for their studies but their personal and professional life after University.

The second involves ensuring preventative strategies as we keep pace with the rise in contract cheating and develop measures to counter it by being explicit about the inherent risks of using these services. These include buying essays which fail to meet the academic standards, the use of blackmail which may continue after graduation, and so on.

The third focuses on punitive strategies not only for the student who has plagiarized, but also in combating the existence of external agencies which threaten the positive behaviours we wish to foster.

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PAEB_138

Contract cheating values in school assessments – what values are we really teaching our young students?

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Keywords: *Primary school, Assessment design, Contract Cheating, Academic Integrity, Classroom values*

Contract cheating in higher education is a menace that academics and researchers are grappling with world-over. Contract cheating is when students get a third party to complete an assessment for then, most times for a price.

Recent studies have shown contract cheating takes place most in business and computing disciplines (Lancaster, 2020). Studies have also posited how students from previously undocumented countries have shared their thoughts in educational corruption and contract cheating, both as students accessing such services or as those providing such services (Lancaster et al., 2019). Others have highlighted ways to raise awareness (Khan et al, 2020) or even how digital forensics could be used to track and catch possible cases (Johnson and Davies, 2020).

However, the recent scandals surrounding high profile cases in an admissions scandal in the United States, or even the latest case a California mother charged for paying someone else to take an online test for her child, have brought sharply to focus the need to look at where, how and why students are acquiring and accepting contract cheating as an alternative means of completing assessments. The aim of the research was to understand how primary school assessments are being completed.

The study used a qualitative mixed method. First it used case study method to capture the story for two parents with child(ren) in different schools. Then the study used qualitative descriptive coding to record the experiences and compare the assessment design and how they have been accepted and perceived by the parents and their children. The parents shared their experiences and story from schools in a middle eastern country. The two parents had child(ren) in two different private schools, both following British curriculum. The parents' experience included assessments from primary classes, years 1 to 6.

However, the schools in question catered to different economic demographics – one was a high-end school with fees ranging from US$7500 to US$125000, and the second one was medium range with fees from US$1900 to US$3800. This was considered to be indicative also of the general buying power of the parents of respective schools. This is because in the country the private schools were segmented to lower-medium-high range based on the wide range of income levels in the nation (Khan et el, 2015)

Other differences included demographic make of the teachers, management and student body. According to the parents, while School A's teachers and management were mostly British passport holders, and majority of students held passports from western nations such as UK, USA, Australia, Canada, and other developed nations; School B's teachers and management mostly reflected South East Asia and Middle East including India, Pakistan, Bangladesh, Philippines among others as did their student population. However, it was not possible to get exact numbers or specifications beyond this data.

Based on parents' stories of their child(ren) who were in these schools from and covered years 1 - 6, assessments in both schools ranged from writing poems, to revision sheets, to making 3D models, posters, charts, videos, presentation slides and so on. Higher the grade, more complicated the assessment method became.

Comparing the two parents' experiences, School A consistently designed assessments that followed take-home model – assessments were sent home with questions posed either online or through written instructions, students were given a certain period of time to complete the assessment, bring it back to classroom, display it and then present it. Whereas, School B rarely designed take-home assessments.

All major assessments were given to students in classrooms and expected to complete the assessments in the class, using an in-class design model.

This distinction in assessment model was quite interesting. Parent from School A said it was not unusual for a parent to complete the assessment for the student. In fact, lower the class and age of the child, more involved parents were expected to be in completing the assessments.

Parent shared interesting insights on assessment completion, using terms and phrases such as "its ok", "not a big deal", "all moms help them", "sometimes we let older siblings help", "we know other parents who bought the model from a stationery shop". In fact, parent said projects completed by parents were always highly appreciated, even became Star of the Week project and so on.

In comparison parent from School B said their children found "working in classroom fun", "teachers are always there to help", "less tension for us", "teacher is there to explain the question more", "frustrating because sometimes I don't have all the material I think the child might need".

These results are fascinating as they show the overarching benefits of assessment design on possibly instilling values of integrity in primary school students. If schools are setting assessments that are expecting parents to help followed by students then presenting the project as their own, the message is dangerous as it actually says it is ok to have someone

else do an assessment for a student. It then becomes crucial to review curricula and assessment designs to see if we are teaching the correct values
to our students when they are young and most impressionable.

The authors are currently in the process of acquiring funding and large-scale approval to expand this study to formally cover more schools, both primary and secondary classes, collect data through formal interviews, focus groups and surveys to see if the results found in this study are consistent.

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PAEB_149

Bait and switch: The search engine optimization content practises of contract cheating websites

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Keywords: Content Marketing; Contract Cheating; Digital Marketing; Search Engine Optimization

Introduction

It has been widely discussed in the literature and popular media, that students subcontracting out the production of their assessments is one of, if not the greatest integrity challenge faced by educators today. In fact, it is serious enough that some countries, such as Australia have proposed outlawing the practice (Ross, 2019). This subcontracting process, first termed *contract cheating* by Clarke and Lancaster (2006), has become increasingly accessible and economically rational to students via a number of technological developments. Take for instance the explosion of secure and encrypted messaging services (Whatsapp, Signal and so forth) that allow small scale services to operate with relative impunity. On a larger scale, and the focus of this paper, there are sophisticated online businesses that utilize encrypted and anonymous payment and cloud technologies to make contract cheating for students as easy as buying a mousepad off Amazon (Rowland et al., 2018).

Recently, research into the contract cheating industry has proliferated. Insights into perceptions among faculty (Harper et al., 2019), the economic rationality of such cheating for students (Rigby et al., 2015), the business practices of such operations (Ellis et al., 2018), have all increased our overall understanding of this multifaceted issue. From a marketing point of view, the research is more limited. Areas of investigation have included the use of Twitter agents to engage directly with students searching for help (Amigud & Lancaster, 2019), the different engagement approaches of contract cheating companies on Twitter (Amigud, 2019), and the psychological persuasion techniques employed on the websites themselves (Rowland et al., 2018). Though strong progress has been made, especially in the area of social media engagement, more fully understanding how students are made aware of these services, and then converted into paying customers is off the utmost importance in the fight to reign in this practice. The present study examines this issue from the perspective of one of the most pervasive technologies in today's society - the search engine.

Search engine optimization

Given that the most common way that individuals gather information is currently via search engines such as Google and Bing (Berman & Katona, 2011), it is clearly important for contract cheating websites to be visible to prospective clients on these sites. In general, the higher a page ranks on a search engine for a particular search, the more likely that the searcher will click that page (Berman & Katona, 2011). One study by Barry & Lardner

(2010) found that the first ranked link on a search results page received five times the number of clicks compared to the second link. Currently, search engines have two methods in which a page can be seen by users, paid search advertising (SEA) and organic search engine optimization (SEO). The important distinction here is that a company cannot directly pay a search engine to rank higher organically (the non-advertisement results). Instead this must be achieved by a wide array of best practices. This includes on-site activities such as content creation as well as off-site link-building from other websites. The focus of this research is exclusively on the on-site organic SEO activities of contract cheating websites.

On-site SEO is focused on the creation of keyword relevant content for search engines to identify as a good fit for the user's search query. This is the key component behind the practice of blogging - creating blog posts that search engines can match to a specific query. So for instance if a website wants to rank on the search term "*buy essay*" – then there should be a page on that site that is optimized for search engines to attempt to rank highly. Similarly, if a website wanted to rank on the search term "*argumentative essay topics*" a keyword optimized blog post about 100 unique essay topics would have a good chance at being ranked by the search engine.

The current body of knowledge that relates to the search engine activities and presence of contract cheating websites is extremely limited. Lancaster (2020) conducted an exploratory study of the types of websites that rank in the top ten on the SERP for Google on discipline specific search terms such as "business essay", reporting that 39.5% of the search results belonged to contract cheating businesses. This is a disturbing trend, but limited to just 19 search terms. Thus, the question - how entrenched in the search engine space are these sites?

Research aim and objectives

The aim of this study was to explore the search engine marketing strategy of contract cheating websites. Specifically, the first stage of this research was to identify the sites that had the highest search engine visibility. The second stage was to analyze the keywords (or search terms) that the 10 largest sites are targeting. In order to achieve this, we employed the same method that these websites would be most likely to use when engaging in measuring and optimizing their search marketing activities. The next section provides a brief overview of search engine marketing as it relates to the aforementioned research objective.

Methodology

This study is based on the idea that contract cheating websites operate using the same digital marketing techniques that any other business might employ. As such, the data used in this study was obtained via the same platform (SEMrush) that major digital marketing agencies, contractors, and in-house digital marketers would use in their SEO procedures. The collection of this data via SEMrush was conducted in a multi-stage process, that is described

in-depth in the following paragraphs. It should be noted that to ensure that language, and geographical differences were minimized, the data was limited to be from the United States database, and only for the year January 1st 2019 through December 31st 2019. This parameter set remained in place for all the data in this study.

Results

The first stage of this research required the construction of a comprehensive list of contract cheating websites with visibility on Google. A simple Google search within a private browser for "business essay" (following the Lancaster 2020 procedure) produced a list of results. Taking the first website listed in the organic search an overview of the organic reach of this site (in this case the site ranks on 50,139 keywords, has 17,549 organic competitors and has an average monthly organic search engine traffic of 244,476 visits). By exporting the data of the 17,549 organic competitors it was then possible to start constructing a competitive set. This set was filtered via the SEMrush metric "competitor relevance" to ensure that sites such as Wikipedia didn't enter the competitive set. This process was replicated for the 18 biggest organic traffic contract cheating websites identified in this process - iteratively creating a master list. In total there were 52 sites identified that had organic traffic above 9,000 visits per month (with many more below this threshold)– accounting for a total of 2,017,103 estimated monthly visits.

Next we extracted the search terms for which the 10 largest sites (by traffic) ranked organically within Google (i.e. within the first 100 results). This resulted in 298,921 keywords in total. In order to focus the analysis on the most meaningful results, given the almost 30,000 keyword results per site on average, the following parameters were set: a) the keyword search volume was above 4,000 visitors per month, and b) the 10 sites needed to account for more than 15% of the combined traffic for a given keyword. The top 20 (out of 45) of these keywords are shown in Table 1.

Table 1: Table description (Times New Roman 10-points, italics)

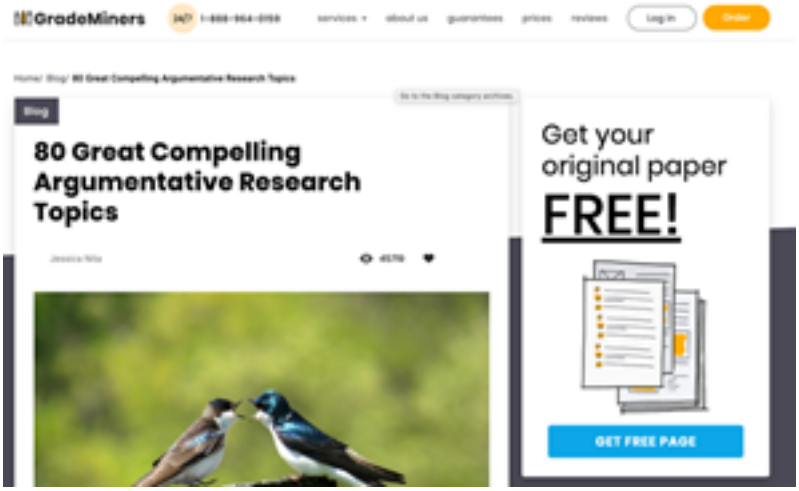
Keyword	*Ave. Position*	*Range*	*URLs*	*Search Vol.*	*Traffic*	*% of Traffic*	*Keyword Difficulty*
essay writing	*10.4*	*2-20*	*5*	*74,000*	*18,944*	*26%*	*74.07*
persuasive speech topics	*8.4*	*4-14*	*5*	*60,500*	*10,889*	*18%*	*68.54*
informative speech topics	*3.8*	*1-7*	*4*	*40,500*	*27,135*	*67%*	*62.66*
argumentative essay	*4.0*	*2-6*	*2*	*33,100*	*5,958*	*18%*	*80.11*
argumentative essay topics	*6.0*	*1-12*	*6*	*27,100*	*19,322*	*71%*	*71.68*
*edubirdie**	*1.0*	*1-1*	*1*	*27,100*	*21,680*	*80%*	*63.93*
essay format	*5.5*	*1-10*	*2*	*18,100*	*9,050*	*50%*	*75.07*
*write my essay**	*8.0*	*5-12*	*5*	*18,100*	*3,312*	*18%*	*61.31*
*buy essay**	*5.8*	*1-10*	*4*	*14,800*	*9,176*	*62%*	*56.81*
essay outline	*3.7*	*1-8*	*3*	*14,800*	*9,324*	*63%*	*75.84*
persuasive essay topics	*6.0*	*1-11*	*2*	*12,100*	*6,255*	*52%*	*68.43*

essay help	*4.0*	*1-6*	*4*	*9,900*	*6,336*	*64%*	*64.45*
*essay writing service**	*6.7*	*1-11*	*3*	*9,900*	*5,415*	*55%*	*59.53*
how to start an essay	*4.7*	*3-7*	*3*	*9,900*	*1,980*	*20%*	*72.42*
persuasive essay	*2.5*	*2-3*	*2*	*9,900*	*2,178*	*22%*	*74.99*
precis	*5.3*	*2-8*	*3*	*9,900*	*2,079*	*21%*	*84.82*
research topics	*7.3*	*2-11*	*3*	*9,900*	*2,049*	*21%*	*74.60*
thesis generator	*5.7*	*3-10*	*3*	*8,100*	*1,539*	*19%*	*62.48*
argumentative topics	*3.5*	*1-6*	*4*	*6,600*	*4,488*	*68%*	*73.67*
*buy essay online**	*3.5*	*2-5*	*2*	*6,600*	*1,188*	*18%*	*58.89*

Discussion and conclusion

The results of the keyword analysis are disturbing at best. While indeed the expected search terms for contract cheating, such as *write my essay, buy essay, and essay writing service* were present – they were only a small portion of the search traffic to these sites. Far more worrisome were the seemingly innocent search terms such as *informative speech topics, argumentative essay topics*, and *essay outline* that made up the bulk of the traffic. For instance, the search term *argumentative essay topics* averaged 27,100 monthly searches in 2019, with 71% of these queries resulting in someone clicking on a link to a contract cheating site. Six of the ten focal sites featured pages in the top 12 results on Google. Examining these six pages tells the story of the strategy employed. Each page is an informative piece of useful blog content, for instance one is titled "80 Great Compelling Argumentative Research Topics" – clicking the link leads the interest searcher to both the answer to the query and a page employing many of the persuasive techniques identified by (Rowland et al., 2018), see Figure 1.

Figure 1: Above the fold screenshot of argumentative essay blog post



The conclusion of this study is that contract cheating websites are not only adept at ranking on search terms specific to their service, but also at searches that are potentially completely innocent. These informative blog posts lure students to the page with this bait, and then

bombard them with persuasion techniques in order to convince them to switch to having someone else do their work for them. This finding has significant implications for practice.

Firstly, educators need to be aware of this practice. A brief analysis (separate to this paper) showed that many educators actually (and inadvertently) link to these posts – essentially endorsing the site to students. Further, students should be made aware of these practices. In the same way that parents might teach their youth about illicit substances in order to inform them of the dangers, so to must educators acknowledge the existence of these sites to students so that students can be forewarned. Finally, it is incumbent upon educational institutions to create their own content that will push these contract cheating sites down the rankings on these innocent searches. This is possible (the keyword difficulty column in Table 1 demonstrates this) but would require an investment in content marketing similar to these sites. The limitations of this study are that we have relied upon data from just one tool (SEMrush), and have limited the investigation severely into the highest-ranking sites. This was in part due to space limitations. The use of SEMrush is mitigated by the fact that these findings rely on trends, rather than the raw data.

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PAEB2020 Conference Proceedings

Sub-Theme: Government and Policy Roles in Encouraging Integrity

PAEB_85

Varying institutional procedures for dealing with student academic misconduct: A short comparative analysis

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Keywords: Institutional policies, disciplinary procedures, academic integrity, misconduct

Establishing and maintaining academic integrity has always been a focal point amongst all higher education organisations. Different institutions use a variety of measures to deter, detect, and discipline student as well as staff misconducts. As for under/post-graduates, the emphasis is now mainly on plagiarism and the use of ghost writing. Since these types of behaviours have become a serious challenge to academia, a holistic approach is necessary. Therefore, many institutions have rightfully established (or improved their own) institutional policies, procedures and proactive strategies. The latter include educational workshops/training, honour codes to deter plagiarism and disciplinary processes to punish the offenses (Kibler, 1993; Cole and McCabe, 1996).

The institutional policies, in theory, should provide fair, and appropriate responses that are consistent and transparent in detection and/or handling of suspected plagiaristic activities. Since "plagiarism", in practice, comprises of a spectrum of different dishonest behaviours including collusion, ghost writing, unattributed copying, submission of another student's work etc., robust institutional policies are important. In fact, these policies are vital in delivering a clear message to the student (and staff) about institutional perspective on plagiarism. As Cole and Conklin (1996) pointed out *"students learn from institutions' responses to academic dishonesty and from institutions' expectations about students"*. Also, due process policy responses are equally important to deter plagiarism (Academic Integrity Project, 2013). Several authors have studied about the effectiveness of institutional policies, and compared different policies (Martin, 2014; Glendinning, 2014; Foltýnek and Glendinning, 2015; Macdonald and Carroll, 2006; Hua and Sun, 2017; Rodafinos, 2018). In 2013, a large scale EU funded project, impact of policies for plagiarism in higher education across Europe (IPPHAE) have reported the strategies, including policies and procedures employed or implemented by different institutions in 27 EU countries. The study is now being extended to other countries. Apart from IPPHAE, there are only a few studies designed to compare the efficacy of measures/procedures amongst different institutions.

In fact, no attempts were made to compare the procedures for academic misconduct enquiries handling a potential plagiarism/academic misconduct amongst different institutions. This workshop would attempt compare the procedures of seven different institutions to understand the robustness of these processes. The aim of this workshop is to show the participants, the importance of pro-activeness and practical awareness to establish institutional procedures for handling potential plagiarism and/or academic dishonesty. Initially a simple Google® search

was employed to randomly select publicly available institutional policies of seven different international universities. The selection include universities from America, EU, EU/UK, Australia and Asia to provide a geographical representations. The names of the institutions are anonymised, as the aim of this study (and related workshop) is to compare and contrast the due processes of academic misconduct enquiries in different institutions.

Dishonouring any institutions and their due processes is beyond the scope of this study. These procedure were summarised in the form of flow charts for easy comparison.

Interestingly, the comparison of summary flow charts has shown a wide range of due processes. In fact, each institution has its own unique procedures for academic enquiry, involving different members of staff including academics, registry, special officers (such as academic integrity or misconduct officers) etc. The prescribed panels that handle these offences, in three (out of seven) institutions were comprised of academics; and in some cases the academics who were involved in detecting/supporting the claim for plagiarism. It is not clear, how this setting would be fair or would maintain confidentiality/anonymity. Others use a special panels of members of non-academics or academic support officers, who are specially trained to handle these offenses in accordance to their institutional policies. By this way, these institutions make sure the panel considering the accusation (whether it is plagiarism or not) is not involved in the assessment of work, At least one university used academics from a different discipline to handle these issues. Another institution selected members on ad-hoc basis.

As for definition of severity of the offences, it was found to be varied amongst these institutions. Some have clearly defined different types of academic misconduct/plagiarism with pre-defined *"tariffs"*. For example, using Carroll & Seymour's (2006) simple classification, some universities have categorised plagiarism as (a) poor academic practice, (b) academic misbehaviour, and (c) academic misconduct and prescribed appropriate punishments for each of these categories. At least one institutional policy provided further explanation on defining the *"severity"* of these offenses.

Its policy considered each occurrence of plagiaristic behaviour in two measurable characteristics namely, "intention" - the student's intention to deceive the marker (on a scale of 0 to 10); and "extent" - the amount of plagiarism (expressed as a % of the submission). It further explains, how to combine these two variables under different permutations. By comparing varying levels of "intention" and "extent", the policy tries to link different plagiaristic behaviour with probable penalties. On the other hand, other institutional policies are not explicit on defining different types of plagiaristic behaviours and linking them with tariffs. Most institutions in this study have measures in place to maintain a clear record keeping that would help in investigating repeat offences.

In summary, this initial comparison of policies highlighting due processes in a small sample of seven different institutions, has highlighted the approaches to investigate plagiarism or

academic misconduct is varied. Some institutional policies have established clearly defined processes, others have vague and ambiguous due processes. This workshop will present, discuss, and try to conclude the important elements within institutional investigation processes. The investigation process of different institutions will be summarised as flow charts and the participants will work in different group to "investigate" each flow charts study the advantages and disadvantages of these processes which would lead to a panel discussion on the important considerations for producing due processes for academic misconduct investigations.

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PAEB_88

Academic Integrity in the Islam World: The Impact of culture

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Various recent studies have shown that the creation of a culture that includes ethical values at all levels of higher education is central to maintaining academic integrity (Bretag & Mahmud, 2015; Gow, 2014; Morris & Carroll, 2015). Scholars such as Morris and Carroll (2015) contend that the greatest impact on student's behaviour is achieved if a culture of academic integrity is fostered through practical experiences in a supportive learning environment that holistically addresses unethical practices. Bretag and Mahmud (2015) developed their framework for policy and practice to institutionalise a culture of academic integrity. It moves from punishments for breaches of academic integrity towards prevention and education. The framework includes academics as 'champions' promoting academic integrity among students and staff. Another supporting practice involves students as active promoters of academic integrity. Other research has explored institutional and national cultures and practices that are detrimental to academic integrity. Some studies have contrasted the academic cultures of the West and East (e.g. Kuiteleh & Adiningrum, 2011) and suggested that international students in western universities commit more breaches than domestic students due to language challenges as well as differential cultural norms and practices. While much research has been conducted on academic integrity related to culture in the western world including the behaviours of international students, and some work has been conducted in various Asian contexts. However, little is known about how national culture and religion affect academic integrity in eastern countries with a Muslim majority. This paper presents a synthesis of the literature related to academic integrity and culture in regions where Muslims are the majority. An integrative literature review was carried out. Keywords were used to search and to collect academic integrity related research published from 2010 to 2019. This study revealed that academics in countries with a majority of Muslims faced challenges related to their local cultures, which included social and religious perceptions and practices. However, they were also able to draw upon national and religious practices that supported and enhanced academic integrity. This paper concludes with recommendations for incorporating these positive cultural factors into an academic integrity framework for policy and practice appropriate for Muslim contexts.

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PAEB_99

Academic integrity initiative in Latvia

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Keywords: Academic integrity; Association

This abstract aims to highlight and ground the initiatives regarding nation-wide awareness of academic integrity importance in Latvia. During recent years at academic society and governmental level, topicality of academic integrity issues has risen in Latvia. Several national-level actions have taken place. The Ministry of Education and Science of the Republic of Latvia encourages higher education institutions to share and to implement good practices of plagiarism prevention and academic ethics. Moreover, the ministry has allocated resources to help higher education institutions to improve.

Activities within European Union Structural Funds Specific Objective 8.2.3 "To Ensure Better Governance in Higher Education Institutions" of the Operational Programme "Growth and Employment" is one of the examples (Cabinet of Ministers Regulations No 26, 2018). This Specific Objective is used as a starting platform for more targeted joint activities on academic integrity matters. The following activities directly or indirectly involving academic integrity are supported within the scope of the specific objective:

- improvement of the content of existing study programmes and its alignment with industry development needs;
- improvement of organizational and governance structures of a higher education institution;
- improvement of the quality management system of a higher education institution;
- development, improvement, and implementation of e-solutions.

The three largest universities of Latvia have signed an agreement to cooperate in academic integrity support and develop an open digital resource with an academic integrity handbook.

During the first activities and discussions between universities, the role of other stakeholders and partners became more clear. It was decided that more organizations should be invited to join the composition of the core team for further discussions. National Library of Latvia and Ministry of Education and Science of the Republic of Latvia, as well as the Student Union of Latvia, were among the first organization invited.

The legal structure of the organization is currently under consideration. Having in mind the national level of this activity, the Academic Information and Integrity Association is one of the current options used to name the initiative (further on – Association). This is how the Association's mission, vision, and aims are seen.

Mission

The association serves as the academic integrity contact point in Latvia. It facilitates the culture of academic integrity and ethics, develops recommendations for improvements at the system level and provides informative and support activities.

Vision

The work of the Association helps to improve the implementation of academic integrity management in Latvia and Latvian higher education institutions. As a result, a systematic approach has been introduced at the national level for the electronic storage of theses, access to their information and verification of the originality of the content. The Association's outreach and support activities and training materials help institutions enhance their staff's competence in academic integrity and proactively reduce the likelihood of academic integrity violations.

The aim

Collaborate on the development of a framework for academic integrity at the national level that supports the promotion of academic integrity and control of violations, including plagiarism in all higher education institutions (HEI) theses. In more detail, strategic and tactical goals are set.

Strategic goals:
- to develop a functioning technical solution to ensure plagiarism testing for all Latvian HEI thesis;
- implement a system of academic integrity that defines the basic principles of academic integrity at the national level;
- create a single pool of open access resources to promote academic integrity and support for participants.

Tactical goals:
- become a member of at least one international academic integrity organization;
- (in working groups) to develop at least four thematic materials and recommendations for improvement of the system (at least one report per working group);
- develop and promote the concept of implementation and oversight of academic integrity.

In order to achieve the goals of the Association, the following commissions, or working groups, would be formed, in the work of which the members of the Association delegate experts:
- Content Management working group, which is responsible for:
    - Development of Institutional Repository System for Higher Education and Science in Latvia

- o Development of recommendations for improvement of legislation and regulations
- Working group on Academic Honesty Educational Work and Methodology;
- Plagiarism Control Research and Development working group;
- Interinstitutional Ethics Commission.

SWOT analysis regarding the Association is carried out. The Association targets the education sector in Latvia with a focus on higher education and science. Expected stakeholders: higher education institutions, colleges, ministries subordinate to higher education institutions, Ministry of Education and Science subordinate institutions (accreditation agency, State Education Quality Service, Diploma Recognition Center), non-governmental organizations (Rectors' Council, Latvian Students' Association, Latvian Employers Confederation, Chamber of Commerce and Industry, College Association). Possible cooperation with general education institutions, industry.

The Association is aimed to be a non-profit organization. Funding obtained and attracted is to be used to maintain and develop the organization and its operations.

The first step towards bringing the Association to life is already done. November 12, 2019, the first information event for all HEIs, the Ministry of Education and Science other stakeholders was carried out and was rather well-attended and successful. Further work includes defining the names of working groups, thematic circles, and institutionalization of the Association.

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PAEB_116

Project on academic integrity in Armenia, Azerbaijan, Georgia, Kazakhstan and Turkey

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Keywords: Academic integrity; Higher Education; Armenia; Azerbaijan; Georgia; Turkey; Kazakhstan; ETINED

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Background

The Project on Academic Integrity in the Caucasus, Kazakhstan and Turkey (PAICKT) was commissioned by the Council of Europe as one of the activities of the ETINED platform. The authors represent a team of researchers from Mendel University in Brno, Czechia and Coventry University, United Kingdom. The research was completed between September 2018 and November 2019. The team explored how the higher education sector in each of five countries: Armenia, Azerbaijan, Georgia, Kazakhstan and Turkey, is responding to the acknowledged need for strengthening academic integrity.

PAICKT is the third research project using the same methodology, involving the same team members. The Erasmus funded project Impact of Policies for Plagiarism in Higher Education across Europe (IPPHEAE), that ran between 2010 and 2013, included a survey of 27 EU member states. The project South East European Project on Plagiarism and Academic Integrity (SEEPPAI), funded by the Council of Europe, surveyed six more countries: Albania, Bosnia- Herzegovina, Croatia, North Macedonia, Montenegro and Serbia between 2016 and 2017. This third project brings the total number of countries surveyed to 38.

The objective was to cover all remaining countries of the European Cultural Convention by 2020. This will allow Member States to have a complete picture of the situation in Europe. Following the collection of data and its analysis, the profile of each Member State is presented through the "Academic Integrity Maturity Model" (AIMM), in the form of radar charts as follows.

Objectives

The objectives of the study were:

- To identify and analyse policies and practices in regards to plagiarism and academic integrity;
- To identify gaps and challenges but also good examples and success stories that could be shared among the States Parties to the European Cultural Convention;
- To propose guidelines to serve as a reference basis for promoting capacity building in higher education institutions and/or peer-learning.

Methodology

We collected both qualitative and quantitative data about the surveyed countries. We employed the same methods and instruments as in previous projects:

- A set of on-line questionnaires, tailored for students, teachers and managers, translated from English into all relevant local languages by the Council of Europe's professional translators
- Face-to-face meetings in each country including:
  - Student focus groups using a set of pre-defined prompts
  - Semi-structured interviews with senior managers and institutional leaders
  - Informal discussions with academic staff
  - Seminars and workshops for different audiences on academic integrity

The questionnaires were updated to reflect experiences from the previous SEEPPAI project and also to incorporate changes in focus from the team about threats and potential solutions. However, the core questions remained unchanged, to allow the same analytical tool to be used, the Academic Integrity Maturity Model (AIMM), as for the previous two projects.

Piloting was conducted on the translated on-line questionnaires, with minor adjustments for accuracy before the data collection began in January 2018.

One difference from previous projects was that this time we appointed a locally-based "country manager" to guide the research and advise on the visits to each of the countries under study. These five associate team members proved to be a great asset to the project. Country managers pertained the main channel for contacting potential participants.

The researchers conducted visits to reach of the five countries between March and June 2019. Table 1 summarises the visits and the activities.

The research was subject to standard ethical review and approval by Coventry University and also required approval from Canakkale Osnekiz Mart University in Turkey, before research could be conducted in that country.

PAICKT activities	Student focus groups	Manager / national interviews	Teacher /student seminars	Teacher interviews / discussions	Universi-ties visited	State/ Public	Private
Armenia	4	4	2	3	5	4	1
Azerbaijan	5	3	0	2	5	3	2
Georgia	4	4	0	5	5	3	2
Kazakhstan	5	8	2	2	9	1	8
Turkey	5	5	3	1	5	4	1
Totals	23	24	7	13	29	15	14

Table 1: PAICKT team in-country activities

Findings

The responses had to be reorganised from a language set into country sets according to the country of study or employment of each participant, before analysis. A total of 1266 valid questionnaire responses were available for analysis, as summarised by country in Table 2.

PAICKT activities	Student focus groups	Manager / national interviews	Teacher /student seminars	Teacher interviews / discussions
Armenia	73	27	10	110
Azerbaijan	281	52	29	362
Georgia	229	90	22	341
Kazakhstan	72	29	8	109
Turkey	296	40	8	344
Totals	951	238	77	1266

Table 2: PAICKT questionnaire responses by country

Strengths and opportunities applying to all five countries

- Involvement in research with international partners from Europe has greatly influenced the attitudes and policies relating to academic integrity at some institutions
- Those involved in the interviews were aware and serious about discouraging cheating
- Institutions with more advanced policies can support institutions with less mature policies
- Text-matching software could be better utilised for educating students about academic writing

Weaknesses and threats applying to all five countries

- Availability of opportunities for "contract cheating", by other students or commercial essay mill companies.
- Low pay and poor working conditions of academics, more than one job, lack of engagement, are disincentives to taking action against students who cheat
- Grade inflation is being driven by incentives for awarding higher marks to students and not identifying academic misconduct.

- The need for income from tuition fees discourages applying penalties and failing students who are cheating.
- In most institutions individual lecturers deal with cases of cheating - potential for inconsistency and unfairness.
- Where text-matching software is available, similarity percentage appears to be misinterpreted as plagiarism percentage, used to determine actions and outcomes
- Plagiarism by staff and students is common.
- Exam cheating is common (crib notes, use of technology, communicating with an accomplice and for accessing notes, use of impersonators).
- Examples of contract cheating by students completing assessments for many other students as well as commercial companies.
- Translation plagiarism is a problem common to all five countries; text matching software cannot identify this type of plagiarism.
- Constantly shifting and evolving threats to integrity.
- The publication record of academics is central to career progression prospects of academics, researchers and PhD students; striving for quantity is affecting quality by driving the use of predatory / low quality journals. Scopus / Web of Science indexing is not a reliable indicator of quality.

AIMM Radar Chart for Armenia

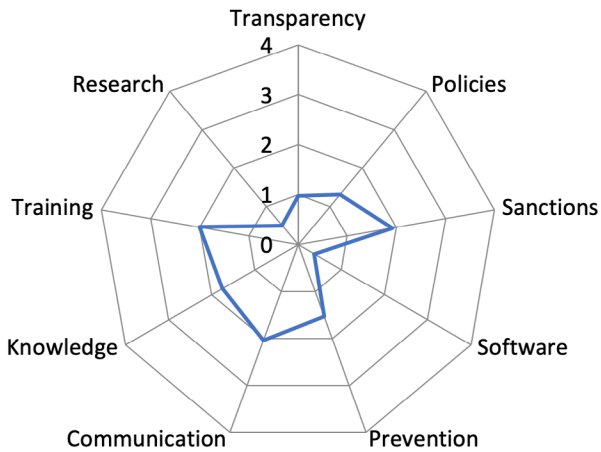

Figure 1: Armenia AIMM Radar Chart AIMM score 12.40 / 36

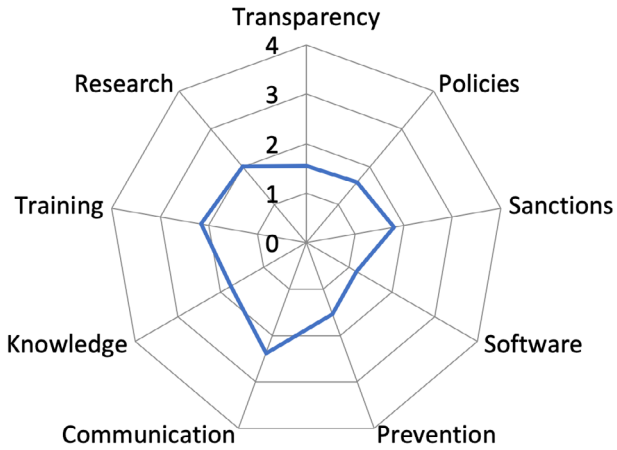

Figure 2: Azerbaijan AIMM Radar Chart AIMM score 15.97 / 36

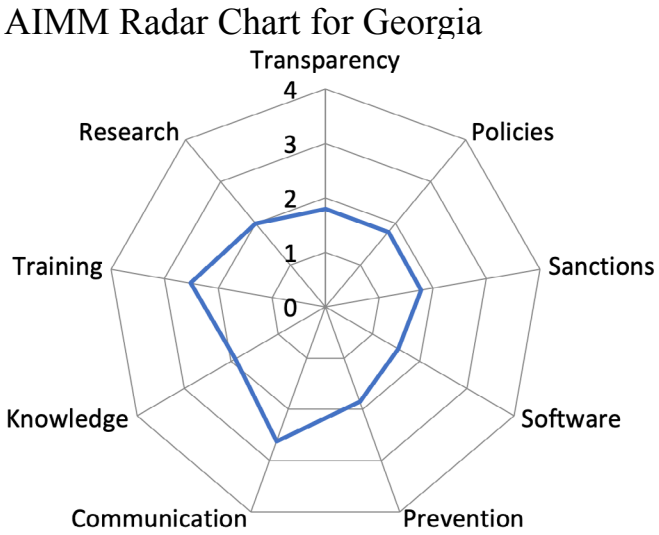

Figure 3: Georgia AIMM Radar Chart AIMM score 17.83 / 36

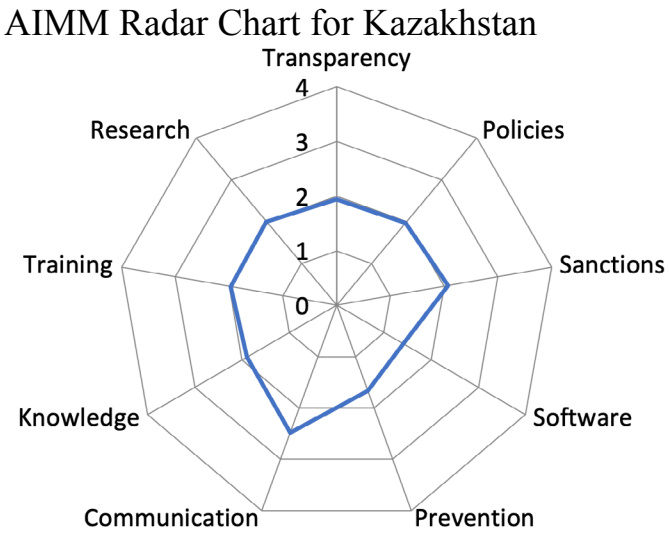

Figure 4: Kazakhstan AIMM Radar Chart AIMM score 17.40 / 36

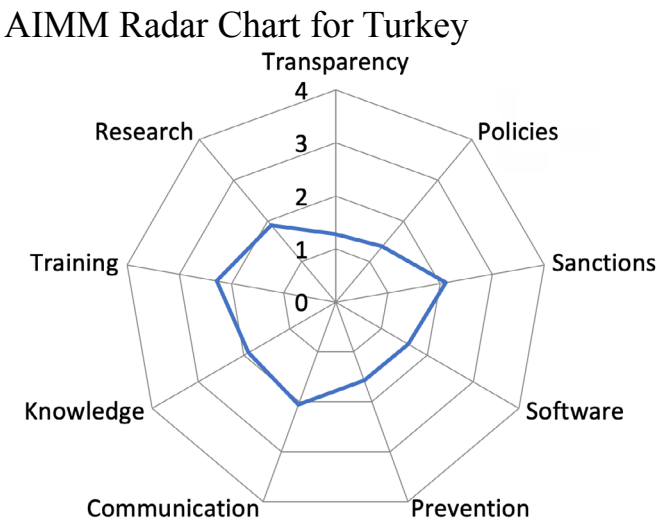

Figure 5: Turkey AIMM Radar Chart AIMM score 16.06 / 36

A comparison of all countries and their AIMM scores can be seen from Figure 5

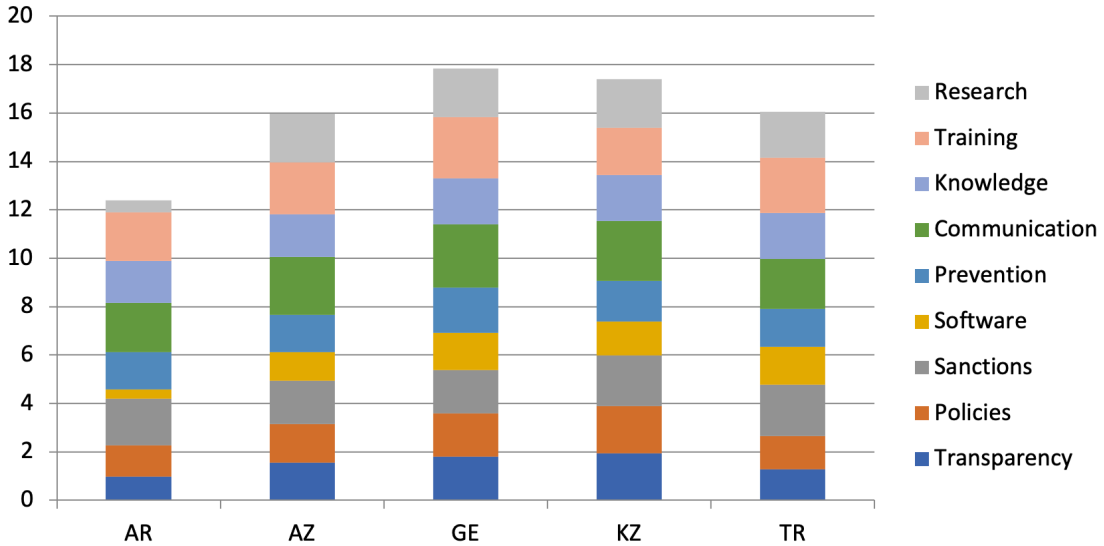

Figure 6: AIMM results for PAICKT countries

Conclusion

There is no doubt that this research is timely and we hope it will be of value to all stakeholders in these countries, including people engaged in other research on related topics. What came across strongly was the desire by most participants to make their country a better place to live, study and work. They understood that they are on a long journey, but the destination, to improve education, reduce corruption and create communities with strong integrity, is worth the effort needed to get there.

However, it will not be easy. Progress will be hampered by denial, deeply embedded poor practice, low pay for academics and corruption in wider society.

The recommendations in this report for all countries, together with the specific points for each country, provide a good starting point for what needs to be achieved next. Communication and sharing of good practice across countries in the study, combined with provision of training and education, are essential first steps.

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PAEB_119

Towards understanding Academic Integrity Policy amongst Hungarian Higher Education Institutions

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Keywords: academic integrity in Hungary, survey preliminary results, plagiarism policies

Introduction

Hungary did not escape the plagiarism crisis that involved the politicians of many countries at the start of the 2010s, however, this at least moved the issue into the public eye. The response to the phenomena [plagiarism] by universities was fulfilled by the creation of ethical rules and multiple plagiarism-detecting software, and Hungarian higher education believed the issue to be solved.

The author has studied plagiarism since 2010, more broadly as academic integrity at the University of Óbuda, where he was the first in the country to coordinate the implementation a complex plagiarism-finding system, that was then integrated with the university's digital repository of academic papers.

The university in question, mainly due to cost issues, would have liked to extend this solution to plagiarism to the national level. This came to be in 2017, when the Hungarian Rectors' Conference (HRC) created a working group to coordinate tasks regarding plagiarism. The author is a member of this committee; thus, an opportunity arose to create a national-level survey of the competencies and attitudes of Hungarian higher education institutions, with the support of the HRC.

The Impact of Policies for Plagiarism in Higher Education Across Europe (IPPHEAE) conducted from 2010-2013 was a European-level study, however, it did not produce significant results for Hungary. Through a series of e-mails with the author of the IPPHEAE report - Plagiarism Policies in Hungary, its Hungarian and English questions were obtained, and it provided a starting point for the current survey (Irene Glendinning personal communication, March 20. 2018, Re: Questionnaires). Furthermore, valuable information from the "Surveying academic integrity: Methodological issues and lessons learned" workshop at the 2019 ENAI conference in Vilnius further aided the development of the survey, largely in the areas of survey design and risk assessment/mitigation.

Research aims and objectives

The survey has multiple simultaneous goals. It was conceived to fill a gap in the information on academic integrity at the national level of Hungarian higher education, paying attention to the currently implemented anti-plagiarism practices and software, as well as to the operation of their repositories. The survey also had the goal of serving as an assessment of the

implementation of a possible national level system in the future, as demonstrated by good examples from Slovakia and Slovenia. (Kravjar, J.- Noge, J., 2013, Ojsteršek et. al, 2014)

Methodology

The first step of the survey was to find and contact the institutions with an online survey form. The survey comprised elements from the following international surveys: AIRS (The Academic Integrity Rating System), IPPHAEA, SEPPHAI. The document titled Electronic Detection of Plagiarism in Finnish Higher Education Institutions 2013 provided a starting point for questions regarding the creation of a centralized national system.
Throughout the summer, HRC sent a letter to the rectors of higher education institutions, which contained the objectives of the survey, its structure, highlighted the importance of informed consent, and asked them to designate someone to fill the survey out at their institution. The designated person received the survey at the beginning of September as a link.

Informed consent was extremely important throughout the survey process, since the respondents fear of damage to their reputation had to be minimized. The survey was not done anonymously. This was reasoned to be appropriate, as the committee is interested in personally visiting the institutions in the future to conduct more precise research, thus we asked for a personal contact, who tended to be the one filling out the survey. After the closure of the survey, data was pseudo-anonymized, and stored in this form. The results are published in aggregated form.

The Online survey was sent in a form that could be saved and continued, through the Evasys system used by universities. (This provides sufficient security for the data). This was necessary due to the complexity and length of the survey. In the interest of more precise data, we asked respondents to contact those colleagues (leader, librarian, etc.) if they believe that someone is more informed or better able to answer a question regarding the institution, in the same was as AIRS.

Structure of the Survey

The survey encompassed three broad categories. The first was scientific ethics, more specifically the institutional rules, procedures, and sanctions regarding plagiarism. The second was institutional repositories, where we asked questions about the storage of students' thesis. The third section contained questions regarding anti-plagiarism systems, with emphasis on the need for such systems. In the case that certain institutions already use such software, we asked about experience with the system, as well as evaluating further needs.

Due to the length and complexity of the survey, the survey email included a unique identifier (token), that ensured that the respondent could stop and save their progress and provided the

opportunity to finish the survey at a later date.

The answering of the survey took much longer than expected, and involved multiple reminders sent to the respondents. The initial plan had the deadline as October 1st; however, this was extended as multiple responses arrived citing a high workload at the start of the semester, making it difficult to finish on time. There were also technical problems throughout the process, thus, after multiple extensions, the data collection was closed at the beginning of December 2019.

Survey Completion Results

"Higher education programmes in Hungary are offered by universities and colleges. In accordance with the common European higher education principles, Hungary introduced the three-cycle degree structure in 2006 (BA/BSc, MA/MSc, and PhD/DLA)." (HRC, 2015)

The number of higher-education institutions in Hungary is 65, the different categories are shown by tables 1 and 2. After multiple contacts, eventually 52 institutions delegated a survey respondent, out of which 50 completed the survey. Thus, the overall completion rate out of Hungarian higher education is 77%.

Table 1: Recognised higher education institutions in Hungary (as of August 6, 2019)

Categories	Completed Survey/ Total Number of Institutions	Number of Students
State (public) universities	21/21	199.664
Private universities	5/8	29.769
State universities of applied sciences	5/5	31.741
Private universities of applied sciences	4/4	10.302
State colleges of education	1/1	361
Private colleges of education	14/26	9.624

Source: (Educational Authority, Higher Education Institutions in Hungary, HRC)

Table 2: Recognised higher education institutions in Hungary by Managing Authority

Managing Authority	Completed Survey/ Total Number of Institutions	Number of Students
State	27/27	231 766
Private (non-religious)	10/14	26 228
Private (religious)	13/24	23 467
Total	50/65	281 461

Source: (Educational Authority, Higher Education Institutions in Hungary, HRC)

Since there are large variations in the number of students at different institutions, the number of students at the institutions that completed the survey is used as a base-value. The data on student enrollment is from the official statistics on Hungarian higher education. The

newest data on student numbers for the 2019/20 fall semester will be made available at the beginning of January. The temporary numbers shown here are from the 2018/19 academic year.The temporary numbers shown here are from the 2018/19 academic year.

The students attending institutions that responded to the survey comprise 96% of Hungarian students in higher education.

The detailed analysis in line with the research plan is starting now, thus there will already be an opportunity to present preliminary results at the April conference.

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PAEB_124

Added Value of Centralised Plagiarism Detection System on a National Level

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Keywords: academic ethics, academic integrity, higher education, metadata, plagiarism detection, theses

Introduction

The use of plagiarism detection (strictly speaking text-matching or detection of text similarities) by means of information and communication technology became a standard for originality checks. Plagiarism detection software [3] is a good assistant that serves as a support for human decision making process in plagiarism matters. Software for detection of text similarities cannot determine plagiarism, it identifies similarities within the checked document with other sources and these similarities may represent plagiarism. The outputs of text similarities detection do not confirm whether the checked document is original or not, the final decision is made by authorities.

Text similarities detection contributes partially to plagiarism reduction, but text similarities detection alone is an insufficient measure for plagiarism removal or reduction. It is necessary to adopt academic integrity measures, including the academic integrity management system.

According to M. Bek (2018) "The main prerequisite for successful defense against plagiarism has always been and will be the quality work of supervisors with students working on their theses". J. Brandejsová (2018) said: "The essential responsibility lies with the supervisor, who is an expert in the field and is well versed in the relevant literature." Evering and Moorman (2012) consider that the most effective way of dealing with plagiarism is actively addressing issues through instruction and not by means of rules or codes. And they added:

> "The current emphasis on testing and grades has made educators and students alike lose track of the more important goals of schooling, such as lifelong learning and national and global citizenship. Refocusing on higher-order goals can persuade students that plagiarism and other forms of academic dishonesty are not in their long-term best interests."

Upbringing and education towards values in childhood should also continue during school years. Comprehensive curricula at all levels of education with an emphasis on values can significantly contribute to the shaping of the character of pupils and students and also to the culture of academic integrity and, consequently, to plagiarism reduction.

Objectives

[3] The term "plagiarism detection software" is widely used, but more exact term is "text-matching software" or "text similarities detection software".

The objective is to show the advantages of metadata collection in the case of a centralised text similarity detection system. In Slovakia, the Centralised Plagiarism Detection System is working closely with the Centralised Repository of Theses and Dissertations – both are in operation since April 2010. All Slovak higher education institutions (HEIs) are required to use this system according to Slovak law. The paper is focused on analytical possibilities of such a system based on uniform collection of theses and metadata.

Methodology

The cooperating systems, Centralised Repository of Theses and Dissertations and Centralised Plagiarism Detection System, are known under a single name SK ANTIPLAG. The Slovak Centre of Scientific and Technical Information (SCSTI) has operated both systems already for ten years. Five types of theses are collected. Today, a rich collection of theses (more than 0.6 million) and metadata are archived and they are used as a base for a wide spectrum of analytical insights useful for HEIs and the Ministry of Education. Several examples of simple and complex insights will be presented.

Uniform collection methodology (UCM) ensures consistent metadata from all Slovak HEIs using the XML format, which is mandatory for exporting electronic versions of theses and metadata (batch mode) into the SK ANTIPLAG system.

Text similarities detection at higher education institutions

The majority of HEIs are free to decide which text similarities detection system will be used in their academic environment. This also applies to Slovak HEIs with one exception: one designated system is used on an obligatory basis according to the Higher Education Act Amendment (2009). The implementation of SK ANTIPLAG is the first worldwide use of a centralised text similarities detection system, which cooperates with a centralised repository of theses and dissertations (both systems are developed in Slovakia). Before the launch of SK ANTIPLAG, only three HEIs used text similarities detection services. Within a year, all Slovak higher education institutions (public, private, state) started to use the SK ANTIPLAG system and it was a significant step forward. SCSTI is open to share its experience with the use of the SK ANTIPLAG system. The first delegation that wanted to know the Slovak experience with the system was a parliamentary and governmental delegation from Poland - they visited SCSTI already in 2011.

Since January 1st, 2019 Poland is the second country in the world that has implemented a centralised text similarity detection system named Jednolity System Antiplagiatowy (JSA), cooperating with the central repository Ogólnopolskie Repozytorium Pisemnych Prac Dyplomowych (ORPPD) – both systems were developed in Poland (jsa.org.pl). In Poland, text similarities detection was widely used already before JSA's operation.

The Slovak system checks the originality of five types of theses: bachelor's, master's,

rigorous, doctoral and habilitation theses and the access to the theses is open to the general public at www.crzp.sk (in Slovak language). The Polish system checks the originality of bachelor's, master's and doctoral theses, and the access to these theses is open for thesis supervisors, research promoters and for the teaching staff. Metadata related to theses are collected.

In both countries, HEIs do not pay for using centralised text similarities detection, or for licences, implementation, technical support and updates. All collected theses and metadata are stored in one centralised repository. The use of centralised systems is obligatory in Slovakia and in Poland due to amendments to the Higher Education Act.

In Slovenia, all major HEIs use the same system and in the near future it is expected that all HEIs will use this system, which was developed in Slovenia (Ojsteršek, 2018). In Czechia, there is a system used by about 50% of all Czech HEIs; the system was developed in Czechia (www.theses.cz). In Slovenia and Czechia, HEIs use text similarities detection systems on a voluntary basis. In the literature, there have been several declarations that all HEIs in the country use the text similarities detection system. However, a deeper analysis showed that it was not true (Kravjar, 2015).

The role of metadata

Metadata is the key and gate to analyses. If the theses originality check is not accompanied by metadata collection, an opportunity for deeper insights is missed. To name a few of metadata: author, type of thesis, study field, thesis title, thesis subtitle, unique thesis identifier, language, abstract, key words, number of pages, year, supervisor, opponents, department, faculty, HEI, thesis downloadability, date and time of thesis registration in the central repository, similarity percentage, originality protocol creation date and time, date of thesis publication at www.crzp.sk.

The palette of analytical insights will be demonstrated on data from the nationwide SK ANTIPLAG system, which is mandatory for all Slovak higher education institutions operating under the Slovak law since April 2010. Many different analytical views on theses and dissertation are available, for example by supervisor, by thesis type, by faculty, by higher education institution, by type of higher education institution, by study field, their combination, etc. There are some analytical views that show a violation of academic integrity by academic staff. One may say that SK ANTIPLAG is not only a detector of text similarities but to some extent a detector of academic misconduct.

Conclusion

If text similarities detection systems collect metadata, then their indisputable advantage are analytical insights. The absence of metadata collection means the absence of analytical insights. Metadata collection means more work that is rewarded by spectra of analytical

possibilities. On the other hand, centralised systems are relatively new and their comparative corpora are not as rich as those of the systems existing for twenty or more years. The ability of text similarities detection of SK ANTIPLAG in the local language is very good, but the ability of text similarities detection in other than the local language is worse.

SK ANTIPLAG collects theses and metadata according to the uniform collection methodology and it provides analytical insights that have common and comparable data base. This feature is out of reach for an academic environment where text similarities detection systems collect theses only. The systems for the detection of text similarities are not a panacea, they have inherent limitations. One of them is the comparative corpus, which is the base for the comparison. No comparative corpus is all-embracing. These systems are only an element of the whole mosaic that helps to reduce plagiarism and increase the level of academic integrity.

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PAEB_145

Equity in Admission: Comparative study of secondary data in high school curriculum valuation

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Keywords: Admission criteria, Equity, Benchmarked Criteria, Valuation, High School, Curriculum

Research Aim and Objectives

Education is an essential integrated part of society which corroborate knowledge, moral and integrity of an individual. A comparative study about university students engaging in academic misconduct in United States and United Arab Emirates by Williams et. al. (2014) reported that 70% and 73% of business faculty students respectively have engaged in some academic misconduct activities. Even though the study considered business students only; the figure 73% evokes the importance of considering proper valuation and set standard criteria to be identified for recruiting well-informed students about academic integrity along with outstanding academic performance to university programs. Furthermore, Tabsh et al. (2015) posited in his study about the responsibility of universities to ensure academic integrity along with student success in academic performance. Academic dishonesty, specifically in undergraduate programs has become a significant issue (Tabsh et al., 2015). As such a student's journey to university starts from admission; thus, it is essential for equity to be present in admission process ensuring equitable caliber students are enrolled who demonstrate ethical and outstanding success in their undergraduate programs in a seemingly equal footing.

The pathway of high school to university is a crucial journey that differs world wide in terms of different pre-university curriculum adopted by different countries across the globe. Each curriculum entails distinctive course content, structure and assessment criteria defining an individual's credentials through certification. Gudo and Olel (2011) postulates in their study the admission equivalency associated challenges encountered due to globalization and cross-border mobility of students across the globe. This provides the platform for evaluating with the use of secondary data in understanding how universities across United Arab Emirates equalize high school qualification for admitting students. Aidoo-Buameh and Ayagre (2013) suggested in their study, the absence in the consideration of quality of students taking admission in university, as a factor attributing evaluation of student performance at undergraduate levels; and this sets the platform of this research. Additionally, the correlation of admission criteria to academic performance leading to instances of academic misconduct is an over-reaching objective of this research.

Methodology with Data collection methods

This study is based on secondary data and uses qualitative coding analysis method. Accessing secondary data from open sources, mainly university websites, data of five universities was obtained. Local universities across the Emirates have been chosen, which are accredited by the Ministry of Education – Higher Education Affairs of United Arab Emirates. The admission criteria to undergraduate programs have been extracted and those data have been coded for qualitative analysis (table 1). Simultaneously, a theoretical research of curriculum structure has been reviewed to juxtapose the following three curriculums: UK curriculum [Ordinary (O), Advance Subsidiary (AS) and Advanced (A) Level], Indian Curriculum [Central Board of Secondary Education (CBSE Grade -12)] and Worldwide International Baccalaureate Diploma (IB).

The research methodology revolves around understanding the above-mentioned curriculums in evaluating the basis of set admission criteria for each curriculum. UK curriculum comprising of three different levels pursued from Grade – 10 to 13 in high school enables students to choose preferred number of subjects of their choice in each level. Usually, students opt to pursue a greater number of subjects in O'Level compared to AS and A Level. A grading scheme of (A* to G) is followed in UK curriculum (Department for Education, 2020). Comparatively, student's graduation from school with Indian Curriculum (CBSE) usually pursues minimum of 5 subjects with a percentile grading scheme for each subject out of 100 (CBSE Research & Development Unit, 2012). Furthermore, the IB Diploma programme incorporates 6 subject groups equally divided into higher and standard level categories along with core components: theory of knowledge (TOK), extended essay, creativity, action and service (CAS). A point system grading scheme is implemented in IB along with multiple requirements for awarding of Diploma. The highest point awarded is 45 in IB (International Baccalaureate Organization, 2020).

Results and Discussions

Achieve (2007), a non-profit organization based in United States of America evoked the necessity of standardization of pre-university qualification to be modified and aligned with university academic requirements. The organization holds seminars and summits bringing multiple stakeholders (corporate CEOs, school and university leaders, governors etc.) under one umbrella representing the necessity of educational level alignment. Achieve (2007) evaluated the components of university admission test and standard placement test where the prior portrayed more effectiveness in student appraisal for admission generally. However, both the form of tests lacked elements of Achieve's criteria. This initiative of Achieve (2007) portrays the importance of proper benchmarked scrutinization of admission process and how the juxtaposition is established among different curriculums as stipulated in table 1 (below).

In the context of the UAE, like Achieve (2007), Commission for Academic Accreditation and the Ministry of Education monitors the integrity, standard, assessment, certification and qualifications provided by private and public accredited universities. As such the entry

requirements for admission to both type of universities is set and monitored by the above-mentioned bodies (Godwin, 2006). However, the in-depth analysis of how the entry requirements are set remains undefined which may contribute towards poor academic performance and engagement in academic misconduct by students coming from multi-curriculum pre-university backgrounds. Godwin (2006) has posited more is needed to monitor and assure quality of education provided by private high schools in UAE. This furthermore demonstrates the inequality present in student's pre-university knowledge and as such the question arises on the process of equalizing different curricula.

Comparative analysis of five local accredited universities in UAE stipulated in (table 1) show that the entry requirements for undergraduate university programs for each curriculum is based on distinctive grades. Across the universities, the entry requirements for UK curriculum remained consistent as opposed to CBSE and IB curriculum. However, IB Diploma of 24 points remained consistent among 4 out of 5 universities. In contrast to UK and IB curriculum, CBSE (Grade-12) portrayed fluctuations in grade requirement for admission to different universities. The range of grade requirement varied from 50% to 70%.

However, the question arises how this comparison has been established. Qualitative analysis using coding of curriculum content, structure, examination and grading of each curriculum portrayed distinction and individuality across them. Therefore, this further stimulates the condition that there is inequity in admission portraying the absence of academic integrity value integrated in admission process across universities. Where some curricula impose academic writing and academic English as courses part of the syllabi, others do not; but when admission criteria are checked, this is not one of them.

An empirical study of the importance of high school grades over placement tests such as SAT towards determining college graduation, GPA, etc. depicted in the research of (Gala et al., 2019) indicates the importance of equalizing different curriculums for the basis of university admission. The question arises is that there are insufficient research and thought towards the base line criteria which compares, for instance, 70% CBSE Grade – 12 grades is equivalent to IB points: 24. How two completely distinctive curriculum grade margins are equivalent for students to pursue admission for same program? This question further provides platform to evaluate the unfairness and unawareness present in valuation of high school curriculum assessment for admission purposes across the universities which could be setting students to disadvantage in the classroom.

Moreover, the absence of consideration of curriculum contents, structure, style of examination and learning outcomes depicts the importance of identification of structured valuation guidelines towards setting admission criteria. A possible and quick solution could be implementation of worldwide standardized placement examination, but this test only evaluates the cognitive ability of a student which is insufficient for student appraisal for admission (Gala et al., 2019).

Conclusion

The qualitative analysis of five local accredited universities in the UAE, highlighted the existence of possible inequality in equalizing high school degrees from different syllabi. The results portrayed the importance of proper curriculum valuation of different high school curriculums as a basis of admission to universities. The existence of complete distinctive components in terms of structure, content, marking criteria, examination methodology raises the question of equity present in admission process, thus further raising question on student readiness for tertiary classrooms. There exists no research on this topic; thus, creating the platform of further investigation and possible solution in bringing about equity in admission.

This study is the first such attempt, paving way for possible solutions and equivalent benchmarked criteria for valuation of high school curriculum enabling effective establishment of integrity among students from multiple pre-university curriculum background through transparent, standardized entrance requirement.

Table 1: Comparative data of admission requirements across universities based in United Arab Emirates.

Serial no.	***Emirate***	***University***	***UK Curriculum [O Level, AS Level & A Level]***	***Indian Curricu-lum [CBSE Grade – 12] overall score***	***IB Diploma***
1	*Dubai*	*A*	*Combination of O Level: 5 subjects As or A Level: 2 subjects with a minimum of C grade for each subject.*	*70%*	*24 points*
2	*Dubai*	*B*	*Minimum 7 subjects with grade: 3 B's and 4 C's from - (O) Levels, AS Levels and/or A Levels.*	*55%*	*26 points*
3	*Abu Dhabi*	*C*	*Five (5) subjects in the O level with minimum grade E or above in each subject. Two (2) sub-jects in Advance Subsidiary Level with min. D or above in each subject. One (1) subject in the Advanced Level with min. D or above.*	*50%*	*24 points*
4	*Sharjah*	*D*	*The highest 7 grades obtained will be considered as follows: A minimum grade of C in 5 O-Level subjects, and minimum grade of D in 2 AS-Level subjects or A minimum grade of C in 6 O-Level subjects and a minimum grade of E in one A-Level subject.*	*70%*	*24 points*
5	*Fujairah*	*E*	*(7) seven subjects at O' level with a minimum grade of C in each subject. If a subject is taken at the AS Level or A Level the required minimum score is reduced to D and E*	*55%*	*24 points*

Source: (Official Websites of five Universities, which are open sources of information to public)

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PAEB2020 Conference Proceedings

Sub-Theme: Integrity from Cradle to Workplace and Beyond

PAEB_91

The efficacy of using a mobile application to enhance students understanding of academic integrity

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Keywords: academic integrity; culture of integrity; fundamental values; mobile learning; students in higher education; values-based learning

Building on the original project "Foundation for Academic Success" (Hanbidge & McKenzie) which was presented to the ENAI in 2017, this session will share the final version of the mobile application and the research results on the efficacy of the tool to increase students understanding of academic integrity (AI).

When it comes to teaching students about academic integrity (AI), most universities/colleges rely on educating students about academic expectations during orientation week and in the first week of classes. However, this important information tends to get lost in the excess of information students receive when they arrive on campus. Moreover, most schools rely on instructors to educate students about academic integrity (MacLeod, 2014), yet insufficient time is spent teaching and practicing its concepts (Bertram Gallant, 2008). Furthermore, the quality of instruction about academic integrity is inconsistent and AI is not well reinforced after the start of school. It's evident that these methods are not always effective at increasing students' understanding of academic integrity.

Research Objective

This research project received over $96,000 in 2017 from eCampus Ontario, a quasi-governmental institution, to build a mobile application to promote academic integrity. The objective was to: develop strategies to enhance students' academic integrity (AI) knowledge and understanding by employing mobile technology with an innovative pedagogical approach. The project was twofold, in that we were exploring both the efficacy of the academic integrity content as well as the effectiveness of using a mobile application.

We were tasked with delivering a complete mobile application that had been tested with students, in under 12 months, which was a very ambitious and challenging timeline. The project was divided into three streams: content, technical and research – with a designated team lead for each. The project team determined that they wanted to offer this application in multiple languages (i.e., English, basic Chinese, and French) and in two main platforms (i.e., Android and iOS for Apple). This added a number of layers of complexity and additional work as all the content had to be translated into each language and then developed for use with both smartphone and Apple phone models.

The content of this learning tool, named *Integrity Matters*, is based on the six fundamental

values from the International Center for Academic Integrity (ICAI, n.d.a). Therefore, it takes a unique approach to values-based learning and is not focused on specific AI terminology such as plagiarism, contract cheating or unauthorized collaboration like most other tutorials on academic integrity. Hence, the concepts in the scenarios are not completely bound to academic settings and are highly transferable, as well as being lifelong skills a student can apply in not only their personal lives, but also in the workplace.

A learning module was created for each of the six values. Within each module, there are two value-based scenarios which are scaffolded together. The scenarios were developed by a diverse group from the University of Waterloo and Renison University College campus which included students, librarians and Associate Deans, who enforced the policy on academic misconduct, as well as staff from the Office of Academic Integrity. After students completed all six modules, the *Integrity Matters* tool culminated with a short quiz. Participants who completed the modules and achieved a passing score of 75% on the summative quiz had the option of receiving a certificate of completion and/or an e-badge, which they could display in Facebook, LinkedIn or their e-learning portfolio.

The technical development and coding of the application was outsourced to a third-party vendor who created the tool within our timelines and limited budget. Some design work was done in house (e.g., scenarios were animated) by a team of students, and were translated by faculty with expertise in basic Chinese and French. A research team oversaw recruitment and testing of the application with various student groups on campus, including testing with students who spoke Chinese or French.

Methodology

The research portion of this project was designed using a mixed-method, non-experimental methodology. This study was approved by the University of Waterloo Research Ethics Board (ORE#22437). Participants were recruited through an email invitation sent out to the entire undergraduate student population. The study participants consisted of students (N=1149) from across each of the six faculties and academic years at the University of Waterloo. Each participant was asked to complete a pre and post-test, and a mobile application usability questionnaire. There was also a small control group (N=29) who completed the pre and post-test without completing the module lessons.

Results and Discussion

Most respondents were in their first year of study (52%), followed by students in their fourth year (17%), then second year (16%), and third year (14%), and graduate level students (1.4%), while 1% were null respondents who elected not to indicate their year of study. Representation from each of the six faculties, from largest to smallest, was as follows: Engineering (48.87%), Science (15.18%) Math (12.39%), Arts (12.22%), Applied Health Sciences (6.63%) and Environment (4.71%). Male students accounted for 53% of the

participant group, while 45% were female students, and .02% of the group were null gender (undetermined) students. The participants were 88% Canadian students and 4% permanent residents (i.e., an individual allowed to live and work in Canada without a time limit on their stay, but they are not a Canadian citizen, [Government of Canada (n.d.)]), and 8% were international students with Visa study permits.

Statistical analysis revealed significant differences among participant groups regarding academic integrity testing results, while the control group test scores did not improve significantly from pre to post-test. Statistical tests revealed that the score distribution of pre-test and post-test were significantly different.

There were differences noted between students from various faculties. Students from the faculty of Math performed poorly in the pre-tests but had the most improved scores in their post-tests. Whereas, students from the Faculty of Arts and the Faculty of Applied Health Sciences experienced lower levels of improvement. There were no significant differences between gender groups in their performance on the pre/post-tests. However, there were differences when it came to residency. Canadian students and permanent residents performed significantly better than international students in the pre-test results. International students did not perform as well as other students in their post-test results, but they significantly improved their performance compared to their pre-test results.

Over eight hundred and fifty (N=858) or 74.6% students completed the additional usability survey about the benefit of using a mobile application. Almost 84% of students agreed that learning about academic integrity with the mobile application provided flexibility for them to learn anywhere and at any time. Also, the majority of users (81.3%) enjoyed the digital format, and they found the application was easy to use.

Conclusion

Overall, almost seventy-five percent (74.7%) of study respondents agreed that their academic integrity knowledge increased because of completing these lessons. In addition, over ninety-eight percent of learners successfully completed the post-test questions (i.e., passed with a mark of 75% or higher), demonstrating they learned to distinguish various aspects of academic integrity. Therefore, we concluded that the lessons in the mobile application significantly enhanced students' knowledge of academic integrity.

Some limitations of this study were the smaller number of students used in the control group, and the groups of students that tested the Chinese and French versions of the Integrity Matters application. Hence, further testing with a larger number of students in these sub-groups would be beneficial. Moreover, additional research testing with students from various educational institutions across Canada as well as the United States and beyond, would further test the efficacy of the application with different student populations. Further exploration of the efficacy of the application would also help expand the limited amount of academic

integrity research, particularly in Canada (Eaton & Edino, 2018).

Next Steps

Given that the six fundamental values of academic integrity are fairly universal, the content in the mobile application has the flexibility to be customized and expanded to suit many settings and situations. The current version includes an example of work placement; however, more scenarios could be added to bridge the connections between academia, career path and an individual's personal life. The intent of this application is to reinforce the six values and to show students that these values are life-long skills for them to emulate.

The content of the *Integrity Matters* application is freely available under a Creative Commons license. Users with mobile devices can access the app, as a guest user, through the iTunes Store or Google Play at no cost.[4] A number of organizations, such as the American Councils for International Education and the International Center for Academic Integrity, and higher educational institutions, such as Seneca College, have promoted the application and adapted it for their own use. Further development of the content into different languages such as Russian, Spanish and Punjabi is being explored.

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Android (https://play.google.com/store/apps/details?id=uwai.dev.integritymatters2)

PAEB_111

Impact of academic integrity on workplace ethical behavior

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Keywords: academic integrity, academic misconduct, ethics, higher education, workplace behaviour, work environment.

Declarations

We state that this work has been submitted to the International Journal for Educational Integrity (IJEI) and it is currently under consideration for publication.

Corruption is a serious problem in Mexico and the available information regarding the levels of academic dishonesty in Mexico is not very encouraging. The country runs last among the member countries in the Organization for Economic Cooperation and Development (OECD) according to the corruption perception index in International Transparency (2018) and its perception is worsening every year. Regarding academic misconduct, 84% of tudents in a Mexican university have witnessed a dishonest action during their education (UDEM, 2018), and 6 out of 10 at another university have engaged in some kind of copying (UNAM, 2013).

Academic integrity is essential in any teaching-learning process focused on achieving the highest standards of excellence and learning. Promoting and experiencing academic integrity within the university context has a twofold purpose: to achieve the necessary learnings and skills to appropriately perform a specific profession and to develop an ethical perspective which leads to correct decision making.

In addition to the work carried out by the basic educational system, the university must fully form and develop the moral vision and purpose of its students, since it is not possible to consider professional education separate from ethical formation. Being a professional must include not only mastery of technical, practical and/or theoretical competencies, but also personal integrity and ethical professional behaviour that helps to give an ethical meaning to all university endeavours (Bolívar, 2005). In so doing, academic integrity is necessary to learn and an essential requirement of academic quality.

The objective of this study is to explore the relationship between academic integrity and ethical behaviour, particularly workplace behaviour.

The study adopts a quantitative, hypothetical and deductive approach. A questionnaire was designed, based on questions used on similar previous research studies (Blankenship & Whitley, 2000; Harding et al., 2004; Lawson, 2004; Lombardo & Eichinger, 2009; McCabe,

2016; Nonis & Swift, 2001; Sims,1993), to gather information regarding the frequency in which they undertake acts of dishonesty in different environments and in regards to the severity they assign to each type of infraction.

The survey was applied to 1,203 undergraduate and graduate students from a private university in northern Mexico who chose to respond to their professors' invitations to answer the survey as part of a diagnostic exercise that the university carries out periodically to learn about the students' perceptions regarding the degree of academic integrity culture on their campus. The statistical analysis was made using factorial analysis to define indexes related to academic fraud and ethical behavior followed by a linear regression technique.

The results reflect that students who report committing acts against academic integrity also report being involved in dishonest activities in other contexts, and that students who consider academic breaches less serious, report being engaged in academic misconduct more frequently in different contexts.

Based on these results, it is unavoidable to reflect on the role that educational institutions and businesses can adopt in the development of programmes to promote a culture of academic integrity which: design educational experiences to foster learning, better prepare students to fully meet their academic obligations, highlight the benefits of doing so, create an environment where cheating or deceptions are very difficult to practice, prevent the severity and consequences of dishonest actions, discourage cheating and establish clear and efficient processes to sanction those students who are found responsible for academic breaches. This will strengthen a positive behavioural pattern in different contexts of their lives, and encourage them to become ethical professionals, business people, and citizens.

The results also suggest that it is not enough to teach academic integrity in a theoretical or conceptual way, but that it is learned and acquired through real contexts and practices, where the prevention or discouragement of gaining benefits through misconduct contributes to student learning and development. This learning goes beyond the classroom and the university context and becomes an ethical behavioural pattern in the work and personal environments. Likewise, organizations should have ethical codes and other elements of a business ethics and compliance programme to foster a culture of integrity and continue the formative process started within educational institutions.

It is essential for higher education institutions to demonstrate a commitment to building a culture of academic integrity, both in terms of their awareness and their practice, since through them the ethical behaviour of students and future graduates is strengthened and forged. In this respect, the university campus is featured as a favourable environment to train individuals and promote ethical behaviour within and outside the university, meeting its commitment to the community and the world to develop more ethical and engaged citizens who do things well in all aspects of their lives.

There has been little research published regarding the influence of student behaviour on academic integrity in schoolwork, and on professional performance. This study, like the ones identified previously, points out a relationship that can and should be explored in greater depth. Academic integrity - concept, benefits, strategies - and its counterpart, academic dishonesty - frequency causes, consequences, management - have not received, in México and Latin America, the attention they have earned in other countries and regions.

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PAEB_113

Implications for academic integrity of secondary school students: Collaborative strategies in dealing with individual written assignments and National Tests in Sweden.

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Keywords: Collaborative strategies; National tests; Peers; Pupils; Social Media; Written assignments

Aim and objectives

In Swedish schools, a development towards an individual focus on the pupil has led to a frequent use of self-regulation. Pupils need to master strategies for favourable development of knowledge, in order to develop the sense of responsibility they need to succeed in a goal and result oriented school system. According to the Swedish curriculum (Swedish National Agency for Education, 2018) and in line with curricula in many countries pupils are to be helped to identify their strengths and weaknesses in order to get accurate scaffolding and guidance from teachers and peers (Harrison & Howard, 2013). In helping pupils understand the purpose of their learning and direct their learning towards specific goals, the pupils are thereby supposed to be able to taking responsibility for their own learning. However, pupils sometimes do not understand neither where they are heading, nor how they are to get there. On the one hand it can be argued that it is important that the teachers help the pupils to visualize the goals that are central for the pupils (Harrison & Howard, 2013). On the other hand, it can be argued, in line with Carlgren (2015), that the pupils' learning process becomes awkward when the pupils are supposed to know what they need to know and the grading criteria for knowing it - *before* they have learned it. Due to that school classes in contemporary society are less heterogeneous from both a cultural and age aspect than before, traditional teacher steered whole class lessons become difficult to preserve. At Swedish schools, "own" work, where the pupils are to work independently is now the most frequent present-day working methods. It is common today that the pupils work independently on tasks where they get the opportunity to plan their work and time, which is becoming important in a society where the individuals are to regulate themselves (Carlgren, 2015). Carlgren describes that the teachers often put in priority that the pupil finish the task, rather than to learn the content. The pupils on the other hand want to get a passing grade, which does not always match a willingness to deepen their knowledge. Being able to show a behaviour responding to an ability, does not necessarily express a knowing-how or a required ability; the pupils' development of knowledge is not necessarily linked to finishing tasks. Thus the teaching could be described as rather aiming at making the pupils pretend as if they "know-how" (Carlgren, 2015).

Research on issues regarding academic integrity rarely focuses on compulsory school. The purpose of the present is to explore and gain knowledge on pupils' collaborative coping

strategies when dealing with individual tasks such as individual written assignment and National Tests.

1. What coping strategies do pupils develop together with peers when dealing with individual written assignment and test-taking?
2. Why do the pupils develop these coping strategies?

Method and theoretical framework

This ethnographic study was based on a long-term participant observation during 4 months where the researcher interacted with and learned from pupils in one class. The observations covered all school subjects, resulting in a 120 000 wordy document of field notes comprising cultural descriptions. A school was selected where 50 % of the pupils had a minority background (born abroad or with both parents born abroad). There were 25 pupils in the chosen 8th grade class. The participant observation was followed by video recordings of lessons in Swedish, Social Studies, English as a foreign language and Mathematics during a couple of weeks. The video recordings focused on the pupils' informal conversations between peers during lessons. Interviews with the same pupils were carried out when the pupils were in 9th grade, resulting in 18 interviews (about 60 minutes each). In 9th grade at Swedish schools, which is the last year of compulsory school, the pupils take between 15 – 18 National Tests in various school subjects. The study was approved by the Ethical vetting board in Umeå/Sweden.

From a sociocultural perspective, learning is regarded as a fundamental social phenomenon where the individual competence is developed through interaction with others (Säljö, 2000/2010). The theory gives an opportunity to understand how schoolwork can both hinder and promote the aimed learning (Carlgren, 2015).

The study also draws on Lazarus (1966) who points out three processes in dealing with stress; first to perceive a threat to oneself, second to mentally prepare response to the threat and third the process – the actual coping – where the process of the response is executed. Pollard (1984) argues the greatest potential threat to pupils' coping at school is associated with teachers' authority and the power of assessing and grading.

Result and discussion

To a great extent the pupils were loyal to peers inside and outside the classroom and showed a willingness to help out. The help could be to correct grammar in peers' assignments or to brainstorm and help out with ideas on how to proceed. However, helping could also be to log in on peers' computers and write assignments for them in the classroom without the teachers being aware. Outside school, and outside the teachers' supervision, pupils who chilled out and valued their leisure time highly sent requests by text messages to more hardworking classmates. They asked them to take pictures of their written assignments and forward them so the pupil could rewrite them "in their own words". Due to the developed coping strategies,

the boys had less access to the high achieving girls' competence and support than the girls had in this goal and result related school context with a focus on bith formative and summative assessments.

The pupils used coping strategies in dealing with test taking, where leaked national tests were shared with peers through digital tools and social media. Pupils who had relied on peers and copied their assignments during previous years were more likely to share and look at the national tests beforehand than those who put more efforts in schoolwork and wrote their own assignments. The copying peers relied on short-term coping strategies and seemed to be at greater risk to continue to rely on short-term coping strategies in upper secondary school. This might lead to that they might be in more vulnerable positions when it comes to school achievements – and later on higher education and working life – than those who mainly rely on long-term coping strategies where the make efforts themselves in schoolwork. The pupils with short-term coping strategies were more dependent on digital tools and mates using social medias, while those with long-term coping strategies tend to have better dispositions to develop autonomy and responsibility for their life-long learning.

Main conclusion

In the class, social networks and digital tools were frequently used in dealing with individual written assignments which created a gap between the pupils in the class, resulting in several excluding aspects such as: a) language mastery, b) gender, c) tools and socio-economic issues, d) space, e) academic (self)esteem and independence, f) social punishments and denied credit of their work and know-how, but also g) in expressing their own opinions and making themselves heard. This can be related not only to gender equity but also to justice in education.

Some identified key factors rendering the pupils' coping strategies related to stress and grades were:

- self-regulated learning in combined with assignments not restricted to the classroom
- supportive peers with a willing to assist,
- a shared regard amongst pupils on grades being somehow important
- the goal-oriented Bologna-grading system
- access to digital tools to forward pictures of assignments and National Tests
- an assessment and testing culture at school.

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PAEB_125

Perceptions regarding academic integrity among entry-level health-professions students in a university in UAE

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Keywords: Academic dishonesty; Academic integrity; Cheating; Health-professions students; Plagiarism

Gulf Medical University (GMU) is a private international co-educational health-professions university. Students come to GMU from different academic systems and wide variations are noted in most aspects of learning and behavior. A high level of professional integrity is expected from healthcare professionals and reports suggest unethical medical professionals had poor behavior from medical school. We conducted a cross-sectional study to assess a) perceptions regarding academic integrity, b) cheating behavior, and c) reasons underlying cheating behavior, in first- and second-year students. A survey prepared using google forms was validated, pilot-tested and disseminated to all first- and second-year undergraduate students (n=830). Data was analyzed using descriptive and inferential statistics using SPSS-23. Pearson's Chi-square/Fischer's exact test was applied to test the association of various factors with academic misconduct. 211 students (24%) responded, 77% were female. Knowledge of academic integrity was perceived to be "very good/good" by 83.5% of students. Cheating using notes in a test or copying in an exam was considered "serious" by 73.5% and 71% students while copying an assignment/getting an assignment done by another student was considered as "serious" by only 53%. 7% students mentioned indulging in cheating behavior in GMU. No association was found between age, college/program, awareness regarding academic integrity or perception of faculty response, and cheating behavior. Only previous cheating behavior was found to be significantly associated ($p<0.001$) with cheating in GMU. More needs to be done to help students better understand the different forms of academic dishonesty and the importance of ethical behavior and professionalism in future workplaces.

PAEB_127

Using academic integrity to teach business ethics

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Keywords: business ethics, pedagogy

Introduction

Business schools are valiantly trying, but often struggling, to ready business students for their careers with the requisite business and technical skills, but also with the requisite ethics for engaging in ethical and socially responsible business. Business ethics courses are pivotal in arriving at such ends. These courses are integral to business education as they contribute to students' moral development and ultimately inform to ethical behaviors post-graduation (Crossan et al., 2013).

An effective course in business ethics allows students to build skills in identifying and addressing ethics problems, concerns, and dilemmas. While these courses do not *make* students ethical, they are a starting point in making ethical behavior more salient to their lives. But because these courses are often standalone courses with no other reinforcement such as embedding ethics in other business courses, there is tremendous pressure for business ethics professors to make these courses are effective as possible; thus, pressure to choose pedagogical approaches that are as effective as possible. To that end, this paper answers a call from May, Luth, and Schwoerer (2014) to develop instructional methods that allow students to link ethics to their values, and then to their careers. The pedagogy suggested herein is an axiological approach to bridging personal integrity, academic integrity (AI), and business ethics. The pedagogy suggested below addresses one of the biggest challenges to teaching business ethics which is students' emotional detachment from the ethics issues under discussion in such a class. This is achieved by using the ethics issues related to AI transgressions to create a stronger affective link between students' and the course content.

AI BASED PEDAGOGY: A PROBLEM SOLVER

Problem One--AI Transgressions Among Business Students and Graduates

There is no disputing that AI is not of concern to some who study business (though there are conflicting findings as to whether business students cheat more than others: see Klein et al., 2007; Lang, 2013; McCabe, Butterfield and Trevino, 2006). It's fair to say that there is a myriad of reasons why business students take a blasé approach to AI. Indeed, the literature abounds with details as to the whys, the hows, and the how often. Indeed, there is much in the literature to suggest why business graduates/business professionals behave unethically. What is likely to common to both the academic and professional context though, and pertinent to this paper, is an argument put forth by Tang and Chen (2008). They argue that the "win at all costs" perspective that prevails within and beyond business schools, relegates

ethics secondary to making money. This win at all costs attitude and all of the other justifications and opportunism must not be allowed to unduly influence attitudes towards AI.

There is much to suggest that cheating during college might well predict unethical behavior in business. Lawson (2004) found that students who cheated at college saw unethical behavior in business to be less unethical. Moreover, and more importantly, Sims (1993) found that graduate business students that behaved dishonestly in college went on to behave dishonestly at work. Similarly, a link between the cheating behavior of business students in college and their ethics at work was found by Noni and Swift (2001). More alarmingly however are the findings of Teixeira (2013). She found that countries with high levels of cheating by economics and business students during college experience more corruption. So if we can diminish student cheating and not allow AI transgressions to become their norm, then perhaps we can decrease the likelihood of students behaving unethically once they graduate.

Teaching Outcomes--AI Transgressions Among Business Students

This subordination of ethics caused by the win at all costs attitude described above simultaneously challenges business ethics professors and educational institutions; the former having to convince students that sitting in a business ethics course is time well spent and the latter having to convince students that AI is also a worthy pursuit. Business ethics professors must aggressively raise the esteem business students hold for AI because students cheat in business ethics courses also! Embedding AI as a central pedagogical component of the course and not allowing it to remain tangential to the course is an imperative.

As pointed out above, students come to business ethics courses in full confidence that they are good people (which they are of course) who would never behave unethically. This course is a safe place for them to come to the realization that good people also do bad things; themselves included. The AI-professional integrity statistics referenced above are an effective way to teach this as well as concepts like the slippery slope effect, rationalizing, justifying, power dynamics and so forth. Students with little work experience are unable to foresee how they might be inclined to behave unethically as they have little to work with. But if we are to be persuaded by the AI literature as to the preponderance of AI transgressions documented among undergraduate students, we have good reason to believe that many students discussing AI transgressions in a business ethics course have themselves behaved unethically with respect to ethics in the academic domain and as such can quietly ponder on what that means for their future professional selves. If they can justify cheating at college then perhaps business ethics professors can persuade them that they might do the same in their professional careers. This is a better lesson on ethics than any abstract business example that a professor might otherwise use.

Problem Two--The Saliency of Business Ethics Issues to Business Students

There tends to be a common approach taken to teaching business ethics. First, professors teach theories such as utilitarianism, deontology, and virtue ethics so that students can develop their moral reasoning skills and thereafter students are taught to build upon this through using ethical dilemmas and/or case studies. While this pedagogical approach is widespread, it is not without its critics. Orms (2016) suggested that the pedagogical tools currently in use in business ethics courses may be helpful but they are insufficient in creating ethical decision makers: they are better than nothing, but nonetheless, inadequate. Moreover, Neesham and Gu (2015) argue that teaching students ethical decision-making through ethical theories and frameworks such as deontology or utilitarianism is insufficient because rules-based pedagogy does not activate the students'—the moral agents—affective character. They also make an argument against the use of case studies as a pedagogical approach to teaching business ethics because students are not personally involved with the cases under analysis and consequently they are not emotionally involved; thus students don't get much from them because there is little to tie a case to a student's life or future. In summary, reasoning business ethics issues in the classroom using principles, rights, consequences or virtues simply does not tie students' strongly enough, emotionally speaking, to ethics. More importantly though prioritizing reasoning in teaching ethics hides the notion that ethics requires people to be more than reasoned decision makers. Moreover, business courses that focus only on reasoned decision making run the risk that students will leave the course with nothing more than an improved ability to make decisions; skills they can pick up in other courses just as readily. So business ethics professors must find an intervention to raise students' affective connection to the course.

Learning Outcome--The Saliency of Business Ethics Issues to Business Students

Using AI in a business ethics course as the ethics issue with which students practice, addresses the missing affect link described above; that is to say, analyzing AI transgressions makes ethics pertinent to students' lives [5]. This counters the problem faced by professors who are unable to make the course sufficiently salient to students' lives and who come to the learning experience wondering why they need to learn how to be ethical when they are already good people. Ethics by feeling may be more influential in influencing ethical behavior than ethics by reasoning (Cushman, Young, & Hauser, 2006) and thus increasing the emotional attachment students have with the material makes the course more effective.

The assignment

The learning outcomes discussed above can be addressed in one large teaching module and related project. To recapitulate, the goal is to make business ethics teaching more effective and AI more salient to the lives of business students by employing the emotional component of AI to support ethics teaching and to employ business ethics pedagogy to raise awareness of AI issues. This assignment is embedded in the component of the course where students learn about values theory, their own values, and how values are created and used in their personal careers. As such, this is very multidimensional assignment and requires an in-depth

[5] Of course it goes without saying that some students don't care about AI either. But this not respecting AI can be useful too, as these students will have to rationalize and justify why it is an non-issue. This is useful as a form of practice too.

understanding of the values theory [6]. Because I want to anchor the learning outcomes to theory, I use Schwartz's personal values theory to help students articulate how their values stance overlaps with or undermines AI. They can use the same approach to determine how their values might support or undermine business and professional ethics.

Hartman (2016) suggests that our role as business ethics educators is to help students answer the question as to 'what shall I do.' In this case it would be what I should do if presented with the opportunity or temptation to cheat. Hartman argues that what is helpful in this regard is that students know what they value; ergo, the use of personal values in teaching business ethics. In this specific case the question would be what values would lead a student to have a favorable attitude towards cheating (in its many forms) and more importantly what values would be enrolled in the decision to actually cheat. I have been using axiology, the study of values, for nine years to teach business ethics though not necessarily using AI as the ethical issue all of this more. The elements of the assignment are:

a. A discussion of the link between values, attitudes and behavior.
b. Calculation of students values using the Schwartz theory on human values.
c. Collection of information on students' perspectives on AI.
d. Teaching students how to interpret their values data and apply their findings to their attitudes and behavior regarding AI.
e. Linking students' views on AI to future professional behavior.

This values-based pedagogy furnishes students with appropriate language to reflect upon and articulate their motivations with respect to AI. Values according to Schwartz and Bilsky (1987, p. 551) are "concepts or beliefs, pertaining to desirable end states, which transcend specific situations, guide selection or evaluation of behavior and events, and are ordered by relative importance." Drob (2016) rightly states that values are in many ways separate from morals, ethics, and virtues. Values are tools that allow us to understand our attitudes and behaviors and to appraise the attitudes and behaviors of others as we compare them to our own.

Values include what we determine is right and wrong, or good and bad. Because of their evaluative nature, values can be the basis upon which we challenge the attitudes and behaviors of ourselves and others; thus, their applicability to evaluating business behavior and behavior that supports or undermines AI. My goal with the assignment is to afford students the opportunity to think in a very meaningful way about their values. They then use this information in the context or their attitudes towards AI and their predictions about when they might be able to justify cheating behavior or buying a paper from a paper mill for example.

Assignment Element A

It is common to equate attitudes to values, but whereas values have broad use due to their abstract and enduring nature, attitudes are more dynamic. Attitudes might be positive or

[6] Even though there is a very specialized values aspect to this assignment it is very much possible to simplify this assignment to remove the values learning outcome.

negative, or weak versus strong, values cannot. Attitudes' relationship to values is that they link values to behavior, through what is known as the value-attitude-behavior (VAB) hierarchy. The assignment starts with a lesson on this hierarchy.

Assignment Element B

Once students are familiar with how values interact with behaviors, they complete the Schwartz Values Survey (SVS). The SVS is made up of two lists of values, where students must rate these values as guiding principles in their lives using a 9-point Likert scale. Using List I, students must select the least and most important values to anchor all subsequent choices on List I before completing the full list. They repeat this process with list II. They then use an EXCEL spreadsheet to abstracts the 57 individual values into ten value types. Students are able to rank the 10 value types from least to most important.

Schwartz's (1992) identified 57 individual values present in societies across the globe (see Table 1). He determined this using the Schwartz Value Survey (SVS), which has become a widely used tool to gather data on the values positions of groups around the world and in many contexts. Schwartz's work ultimately determined that these 57 individual values can be grouped together into 10 value types based on their common motivational goal (See Table 2.) These values types are: Power, Achievement, Hedonism, Stimulation, Self-direction, Benevolence, Universalism, Conformity, Tradition, and Security (see table 1). Schwartz's theory is laid out in a very effective and readily understood conceptual framework in the form of a circumplex (see Figure 1). Each wedge of the circumplex represents one of the ten value types, each value type being comprised of a subset of the 57 individual values. The location of each wedge is meaningful, as it indicates the relationship between the values each wedge represents, which in turn impacts subsequent behavior. This second aspect to Schwartz's work, the relationships between value types, speaks to the notion that a person may be motivated by multiple value types at the same time, especially when they share similar underlying motivational goals (see Table 3).

According to Schwartz (1992) behavior consistent with individuals' values stance has practical, psychological, and social implications and as such, behavior consistent with one value type may conflict with that constituent with another value type if the two values don't share a motivational goal (see Table 3). For example, the set of individual values of which Power is comprised (social power, authority, wealth, preserving my public image, social recognition) satisfies peoples' motivation with respect to "social status and prestige, control, or dominance over people and resources" (Schwartz, 1994, p. 22).

Behavior based on Power does not conflict with Achievement (individual values successful, capable, ambitious, influential, intelligent), because it relates to the need for "personal success through demonstrating competence according to social standards" (p. 22). The shared motivational goal here is "Social superiority and esteem" (p. 24), thus the congruency

in potentially related attitudes and behavior. I then teach to which values drive interest in constructs like choice of degree, social justice activities, pastimes and hobbies, consumption preferences and so forth. In general, I give them an overview of the findings from the last couple of decades on research findings linking values to behavior. It is here that I first introduce the notion that cheating is also connected to values.

Assignment Element C

Students complete a short survey comprised of questions from both the McCabe Academic Integrity Student Survey and the Ferguson Academic Integrity Student Survey. Students are not required to share the details with anyone, but rather use the survey responses later in the assignment in conjunction with their values responses.

Assignment Element D

This next stage of the assignment is where students begin to learn how to link their values numbers to specific behaviors. Having completed the SVS and working with me to interpret the numbers they begin to articulate their values stance. For example, they can describe themselves as being most motivated by Power and least motivated by Universalism.

An interesting element of the course arises at this point when students hear their peers' express motivations that are different to their own. They have an opportunity to see where how they differ and if this is something with which they are comfortable. For example, many students believe they are broadminded and support issues of justice etc. but on comparing themselves to their peers and the literature they find they might be more Power or Achievement oriented than they would have though. They can be surprised to see that they are more motivated by Tradition and Conformity when they would have previously described themselves as being motivated by Self-directed for example.

With respect to the AI findings, students must make relationships between their stance on AI and their values. While there is no one academic paper to where I can point students to look for the links there are indicators in the literature as to how the 10 categories of values discussed above might be linked to AI. Also, because I have been working in this closely with students for almost a decade now, I have much anecdotal evidence as to the links.

Assignment Element E

During this final phase of the assignment I go through evidence in the literature regarding the correlation between lack of ethics in school and subsequently at work, which we use as a jumping off point to discuss the rationalizing and justifying behavior, incrementalism, slippery slope, power dynamics, habituation and so forth

Conclusion

By the time students graduate there is a very high chance that they will have cheated at least one while at college (Drye, Lomo-David & Snyder, 2018). That said, we might take some solace from Giacalone and Promislos' (2013) proposition that while it is common to overestimate people's interest in behaving ethically, it is nonetheless still possible to encourage students to be behave ethically. I hope that learning and assignments such as those described in this paper, can help with this. Unfortunately, though, as Arlow and Ulrich (1985) point out that while attitudes toward cheating improved after an ethics course, over time it reverts back to its baseline. So it incumbent upon my peers to play their part in the fight. Even if they don't, at least students being more aware of AI issues.

The prevalence of unethical behavior persisting across time reinforces the danger of ignoring student cheating (Teixeira, 2013). Students' attitudes and behavior with respect to AI can be positively impacted, but a semester long approach is requisite to do so (Shaftel & Shaftel, 2005). This assignment while not a semester-long assignment, it is a part of a semester- long project linking values to business ethics and social responsibility, so I expect it to have some impact.

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Tables

Table 1. ***Schwartz's 57 Single Values***

Value Type	Single Values
Universalism	broadminded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment
Self-direction	creativity, freedom, independent, curious, choosing own goals, self-respect
Stimulation	daring, a varied life, an exciting life
Hedonism	pleasure, enjoying life, self-indulgent
Power	social power, authority, wealth, preserving my public image, social recognition
Achievement	successful, capable, ambitious, influential, intelligent
Security	family security, national security, social order, clean, reciprocation of favors, sense of belonging, healthy
Tradition	humble, accepting my portion in life, devout, respect for tradition, moderate
Conformity	politeness, obedient, self-discipline, honoring of parents and elders
Benevolence	helpful, honest, forgiving, loyal, responsible, true friendship, mature love

Schwartz (1992, Table IV, p. 28).

Table 2. *Schwartz's Value Types and Their Motivational Goals*

Value Type	Motivational Goal
Power	Social status and prestige, control or dominance over people and resources
Achievement	Personal success through demonstrating competence according to social standards
Hedonism	Pleasure and sensuous gratification for oneself
Stimulation	Excitement, novelty, and challenge in life
Self-direction	Independent thought and action—choosing, creating, exploring
Universalism	Understanding, appreciation, tolerance, and protection, for the welfare of all people and for nature
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture and religion provide
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
Security	Safety, harmony, and stability of society, of relationships, and of self

Adapted from Schwartz (1994, p. 22)

Table 3 . ***Schwartz's Value Types and Their Shared Motivational Goals***

Value Types	Shared Motivational Goal
Universalism & Benevolence	Enhancement of others and transcendence of selfish interests
Benevolence & Tradition	Devotion to one's in-group
Benevolence & Conformity	Normative behavior that promotes close relationships
Conformity & Tradition	Subordination of self in favor of socially imposed expectations
Tradition & Security	Preserving existing social arrangements that give certainty to life
Conformity & Security	Protection of order and harmony in relations
Security & Power	Avoiding or overcoming threats by controlling relationships and resources
Power & Achievement	Social superiority and esteem
Achievement & Hedonism	Self-centered satisfaction
Hedonism & Stimulation	A desire for affectively pleasant arousal
Stimulation & Self-direction	Intrinsic interest in novelty and mastery
Self-direction & Universalism	Reliance upon one's own judgement and comfort with the diversity of existence

Adapted from Schwartz (1994, p. 24-25)

Table 4 . ***Schwartz's Bi- Polar Values Dimensions***

Dimension	Value Types
Self -Transcendence	Universalism & Benevolence
Self – Enhancement	Power & Achievement & Hedonism
Conservation	Conformity & Tradition & Security
Openness to Change	Hedonism & Stimulation & Self-direction

Adapted from Schwartz (1994, p.25)

Figure

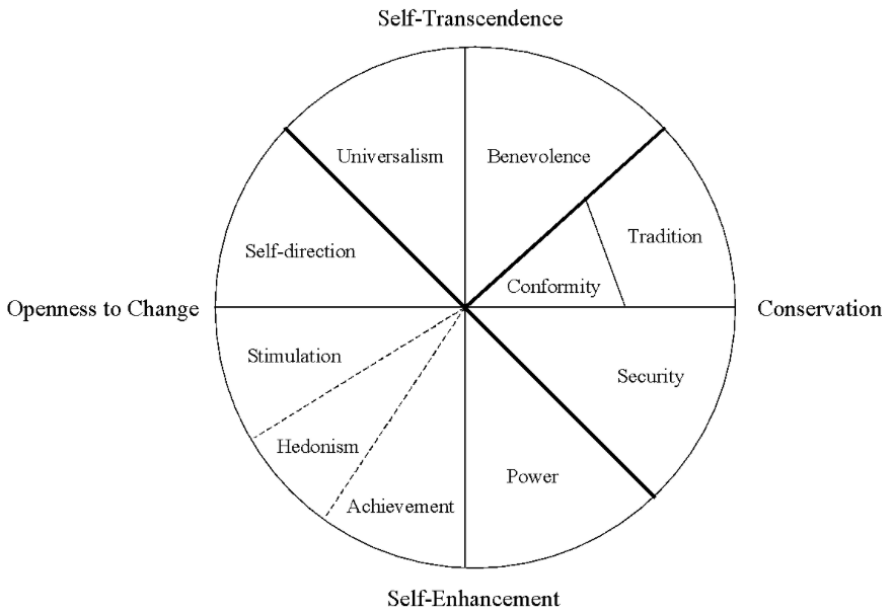

Figure 1. Conceptual framework of Schwartz value types from Schwartz (1994, p. 24)

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Do individual factors and academic discipline affect student cheating behavior? An empirical study in the Middle East

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Keywords: Academic Integrity; Academic discipline; Big five; Cheating; Individual factors; Personality

Introduction

In the current digital information age, university students are regularly exposed to unethical practices by role models in various professions across the world. Instances of bankers paying billions of dollars in penalties for money laundering and taking advantage of consumers (Finch, 2017) and of businesses infringing the intellectual property rights of their competitors (Lusha and Elias, 2017) are common news headlines. Similarly, in the medical profession, doctors have been suspended for over prescribing, malpractice, and insurance fraud (Maldonado, 2017).

As per social learning theory, "much of human behavior is learned through the influence of example" (Bandura, 1986, p. 527), university students may be led to believe that they "may need to act unethically to advance their careers" (Lawson, 2004, p. 189). Consequently, despite increasing recognition of the importance of ethical behavior in higher education (Macfarlane, Zhang, & Pun, 2014), academic integrity still remains a persistent problem at a global level (Cronan, Mullins, & Douglas, 2018) and scandals involving students' academic misconduct have surfaced at many of the world's leading institutions (Minarcik & Bridges, 2015).

With respect to individual differences, extant research has clearly established the influence of three of the big five personality dimensions, namely *emotional stability, conscientiousness and agreeableness,* on academic misconduct (Byle and Holtgraves, 2008; Giluk and Postlethwaite, 2015; Karim, Zamzuri, and Nor, 2009). A second individual factor relates to gender, as male and female students have been reported to exhibit different cheating behaviors (Chapman & Lupton, 2004; McCabe & Trevino, 1997; Simon et al., 2004). In terms of context, students on campus are enrolled in different academic disciplines, thus being exposed to different deontological standards and moral compasses in line with the exigencies of their respective disciplines.

Despite a rich academic integrity literature, to the best knowledge of the authors, no empirical investigations conducted on a single campus have simultaneously modeled the

influence of personality traits, academic disciplines, and gender on cheating behavior. The present study endeavors to address this gap.

The study had three specific objectives:

1. To analyze the impact of academic discipline (business, engineering, and medicine), on student academic misconduct.
2. To analyze whether gender has any correlation with the student academic misconduct.
3. To analyze the impact of three personality traits (agreeableness, emotional stability, and conscientiousness) on student academic misconduct.

Method

A mixed method approach was adopted for the study. At the first stage, in-depth interviews were conducted with five faculty members, a senior university administrator, and three senior students. This process provided insights into the factors affecting cheating behavior and helped in identifying measures for the study constructs and adapting them to the study context. The items were worded in terms of hypothetical behavior to make it easier to elicit honest responses. After a pilot administration, some enhancements in item wording were made leading to final study questionnaire. On obtaining ethics approval, the survey was administered electronically to students enrolled at a large university in the Middle East which offered programs in different disciplines. They were assured of anonymity of responses and provided a link to the electronic questionnaire. They were then required to provide an informed consent before responding to the survey. At the end of the data collection process, 678 responses from students in three schools (Business, Engineering, and Medical) were obtained.

The data was analyzed using exploratory factor analysis (EFA) in SPSS 20 to identify the factors that emerged. At the next stage, confirmatory factor analysis (CFA) in LISREL 8.5 was used to confirm this factor structure, as well as to establish reliability. Convergent and discriminant validities were assessed, using average variance extracted (Fornell & Larcker, 1981). After this, a composite measure of cheating scale was constructed and a comparison of means across the three programs of study, and across gender was undertaken using ANOVA and independent samples t-test. Finally, a multiple linear regression using dummy variables was conducted in SPSS, with cheating as the dependent variable, and personality traits (agreeableness, conscientiousness, and emotional stability), gender of students and the school they were enrolled in as predictors.

At the conclusion of the quantitative phase, in order to gather further insights to interpret the findings, a second qualitative phase in terms of in-depth interviews were conducted with three professors, one each from the Business, Engineering and Medical Schools, as well with two students from each school.

Findings

The 678 respondents demographically consisted of 353 males (52.1%) and 325 females (47.9%), with 353 students (52.1%) enrolled in Medical School, 178 students (26.3%) in Business School and 147 students (21.6%) in Engineering School, which was broadly reflective of the population statistics.

The sample sizes across schools and gender were adequate for statistical testing. An ANOVA test showed that there was a significant difference in the variance of cheating behavior across schools with medical students having the lowest scores (X = 1.92), followed by engineering students (X = 2.29) and finally business students being the highest (X =2.63)

Comparing means of cheating behavior by gender

An independent samples t-test showed that male students tended to self-report being involved in cheating behavior significantly more than females (X=2.32 &X=2.01, respectively, $p < 0.01$). However, t-tests conducted across each school had mixed results where differences across gender were statistically significant for medical students while there were no statistically significant differences for either business or engineering students.

Comparing means of cheating behavior across schools and gender

A pertinent issue arises from these findings, is to determine which one of gender and academic discipline has the higher impact on student on cheating behavior. To this end, a t-test was used to compare the mean score for male students at Medical school (2.07) to: 1. Female students in Business (2.45), 2. Female students in Engineering (2.13). The results showed that the difference was significant between male medical-female business ($p=0.02<0.05$), while not significant for male medical-female engineering students ($p=0.77>0.05$). This provides support to the key role of academic discipline on cheating behavior, as consideration of academic discipline reversed the earlier finding of male cheating behavior being greater or equal to that of their female counterparts.

Impact of personality on cheating behavior

A multiple linear regression (with dummy variables) was used to test if cheating behavior, could be predicted based on the three personality variables along with gender and academic discipline. For the purpose of defining dummy variables, male gender and medical students were selected as the comparison variables.

The variance inflation factor was well below the commonly used cut-off point of 10 (Belsley, Kuh & Welsch, 1980), with the highest value of 1.97 thereby confirming the absence of multicollinearity in the data, while the Durbin-Watson statistic was close to 2 (1.85) confirming that error terms were not correlated.

An examination of the output file showed that the data fit the model well with an F-value of

17 (p<0.01), while the predictors collectively explained 12.5% of the variance in cheating behavior. The output file may be interpreted as follows. All predictors were statistically significant. Emotional stability, agreeableness, and consciousness had a standardized coefficient of 0.29 (p<0.01), -0.122 (p<0.01), and -0.135 (p<0.01) respectively on cheating.

Hyp	Description	Parameters	Conclusion
H1	There is a significant difference in cheating behavior among students from different academic disciplines	Business and engineering students cheat 0.618, and 0.245 points > medical students	Supported
H2	Male students report cheating significantly more than their female counterparts	Females cheat 0.238 points <males	Supported
H3a	Emotional stability, is negatively associated with cheating behavior among university students	Beta=0.29 (p<.01)	Supported
H3b	Agreeableness is negatively associated with cheating behavior among university students	Beta=-0.122 (p<.01)	Supported
H3c	Conscientiousness is negatively associated with cheating behavior among university students	Beta=-0.135 (p<.01)	Supported

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PAEB_130

The Plagiarism Challenge

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Although searching for "plagiarism" in Google Scholar, generates more than half a million results, only 23.67% of students and respondents, respectively, 46.15% of faculty members in Serbia believe they have adequate knowledge regarding plagiarism. In order to learn more about what necessary understanding of plagiarism is lacking amongst students and faculty in Serbia, two voluntarily and anonymous online questionnaires were distributed to faculty and students at private and public universities throughout the country. Responses were obtained from 729 faculty members and 1741 students and analyzed to see what information could be gleaned.

While there is a vague general agreement that plagiarism involves presenting the content of someone else's work as own, and also that submitting parts of a text or a text in its entirety without giving credit to the original author, both teachers and students show uncertainty about where the boundaries are. Competing popular definitions and descriptions of plagiarism such as "wrongful appropriation", "patchwriting" (Howard, 1995), and "literary theft" are vague and unhelpful to students trying to ascertain where the lines should be drawn, while precise academic definitions such as Fishman's proposal (2009) that plagiarism occurs when a writer uses words, ideas, or work products:

1. Attributable to another identifiable person or source
2. Without attributing the work to the source from which it was obtained
3. In a situation in which there is a legitimate expectation of original authorship
4. In order to obtain some benefit, credit, or gain which need not be monetary

These definitions are rarely included in courses or handbooks where students might be more likely to benefit from them. Quite simply, it's often assumed that because students are familiar with the general concepts of plagiarism, they know the specifics of how to avoid it. Research has shown that this is not necessarily the case and the students and sometimes even researchers often do not understand the concept of plagiarism (Bašić et al., 2019). This study demonstrates that students often talk about gray zones, saying that they need to refer to texts but they are confused about how to properly acknowledge their work. This confusion may explain why students have higher tolerance towards misconduct when compared to the faculty, especially regarding plagiarism and falsification of research results (Brimble & Stevenson-Clarke, 2005).

In order to investigate what exactly it is that is considered to be problematic, the two groups have been asked whether they consider seven case scenarios to be plagiarism or not. The results show that both faculty and students show lack of knowledge, but that the faculty tends

to understand plagiarism better and thus to judge plagiarism as more serious than students. The difference between the faculty's and students' views is significant. In all the cases examined in the survey, the faculty rate the examples as plagiarism or serious plagiarism to a much greater extent than the students.

The uncertainty is not limited to knowing when to label something as plagiarism; it can also go the other way. While one of these cases was clearly not plagiarism, many students and faculty members have marked it as plagiarism and some even as serious plagiarism, showing clearly uncertainty about the conventions in that way as well.

Self-plagiarism is another topic that seems to be unclear for both teachers / researchers and students. Rules considering self-plagiarism in particular seem to be challenging. Particularly regarding the question of what is permitted to be reused and what must be original every time. Can you use the same method description or introduction in two articles that are based on the same project or submit the same text on two courses? The surveys revealed that 39.87% of the students and 24.20% of the faculty members believe that it is not cheating to copy a paragraph from your own earlier published text word by word without acknowledging a source, while 40.06% of the students and 21.61% of the faculty members think that it is ok to submit a work previously submitted to another course without specifying that.

The usage of the technology for the detection of plagiarism in Serbia is limited: merely 17.91% of the faculty members have used a text matching software, leaving a room for improvement. Instead, the faculty mostly rely on the feeling that something looks familiar or the variation of the language or the format in a text.

Although both students (70.34%) and faculty (65.92%) consider laziness to be the major reason for plagiarism there are several significant differences between both groups: while 52.92% of the faculty blame the internet for making it easy to cheat, only 34.42% of the students think the same. Other reasons that students and faculty consider important are that students want to pass the course at any price due to the pressure from family, friends, etc. While students stress lack of interest in the topic, faculty sees lack of punishment as well as insufficient knowledge on academic writing and of what plagiarism is as important reasons.

Previous research done within the SEEPPAI project has noted a discrepancy between students' and faculty's approach regarding ways to improve academic integrity in Serbia: "Students believe in education, whereas teachers prefer sanctions" (Foltýnek et al., 2017).

A clear majority of students and faculty in Serbia consider academic integrity to be an important question, however the results of this study show the need for further education. Both groups state making information about academic integrity an integral part of education at all levels from undergraduate to postgraduate to be the most effective way to prevent plagiarism. But while students experience a lack of information about plagiarism and only 13.58% feel they have received enough information, 69.35% of teachers believe that they

provide such information on their course, a discrepancy that shows that a review of the educational measures is needed. The surveys demonstrate that in Serbia, faculty as well as students would benefit from an enhanced pedagogical approach to academic integrity and getting more education in that area. Although a large majority of students and faculty members think that academic integrity indeed is an important question, the lack of confidence about the specific understanding about plagiarism is remarkable – and potentially harmful.

The majority in both groups does not think that they have enough knowledge on plagiarism, not surprisingly when the majority of students has not received enough information about the issue although the majority of teachers state that they have informed the students in the context of their teaching. Therefore, it might not be a coincidence that both groups consider education on academic integrity being one of the most effective ways to prevent plagiarism. A review of the pedagogical measures is recommended. Another area of improvement might be higher usage of the text-matching software, as well as the development of standard procedures for reporting the cases of misconduct. By analysing the various plagiarism survey responses, insight and potential avenues for improvement can be extracted which can be applied in other countries as well.

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Academic Integrity Teacher Training: Preventive Pedagogical Practices on the Course Level

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It is a frequently heard lament amongst teachers that "students should know that!" but it is not clear that this frequently voiced expectation is warranted. Students are generally not psychic, and particularly at a time in which students from vastly varied types and levels of academic preparation are admitted, such assumptions cannot be made. When it is essential that students obtain subject matter mastery, we make the essential information part of our curriculum; we do not assume that they already know what we want them to know. We don't ask that they find the information themselves or refer them to a web page or policy and consider the matter done, yet in the case of plagiarism, a sheet of paper – a policy, an honour code, a reminder that cheating and plagiarism will be punished or that they are expected to cite and reference correctly – is often the only "instruction" student receive on the complex problem of academic integrity.

The enigma behind the sheet of paper pedagogics is the fact that academic integrity is a discipline that, much like Thomas Aquina's apophatic theology, is all too frequently defined by what it is not: it is not cheating on exams, it is not plagiarism, not colluding, not falsifying, not fabricating, not contract cheating. There is a sharp division between the definition of academic integrity and the approaches to teaching and to dealing with it: when defined as what it is *not*, academic integrity focuses on prohibition and correction of students' behaviour. We focus on detection, and punishment instead of teaching students what to do instead.

Academic integrity can, and should, be defined in ways that focus on the positive approach of what it is. Glossary for Academic Integrity describes it as "Compliance with ethical and professional principles, standards and practices by individuals or institutions in education, research and scholarship" (Tauginienė et al., 2018). International Center for Academic Integrity defines it in terms of six fundamental values: honesty, trust, fairness, respect, responsibility, and courage (International Centre for Academic Integrity, 2014). It is also fruitful to approach academic integrity as an interdisciplinary field relevant to all disciplines, as well as a key competence for sustainable development as several of the Agenda 2030 sustainable development goals refer to components of academic integrity; e.g. quality education (goal 4), scientific research (goal 9), and reducing corruption (goal 16) (Rosa, 2017).

Such a development of the definition with a focus on what academic integrity is and what values it consists of, leads to shifts in research, teaching and discussing academic integrity from methods that concentrate on the detection and punishment

of misconduct toward focusing on the preventive and pedagogical promotion of academic integrity (Bertram Gallant, 2008; Carroll & Zetterling, 2009; Ferguson et al., 2007, Morris, 2016), and, finally, to developing a culture of honesty with clear standards and a holistic and systematic approach where the whole institution is included in the process (Collins & Amodeo, 2005; East, 2009; East & Donnelly, 2012; Macdonald & Carroll, 2006; Morris & Carroll, 2016). Such a holistic approach contains a variety of methods and measures where policy and practice are aligned (Bretag et al., 2011).

Approaches to academic integrity are most effective when they are customized to specific learning contexts, therefore the positive approach towards academic integrity should be an integrated part of the curriculum. That in turn leads us to the question how we as teachers best can foster academic integrity?

In this teacher training workshop, it will be shown how the constructive alignment (Biggs, 1996, 2003) can be used to develop the knowledge of academic integrity on the course level. The examples of the progression during different stages of the learning process will be given (Anderson, Krathwohl, & Airasian, 2001; Biggs, 2003; Bloom, Krathwohl, & Masia, 1984) thus ensuring a systematic approach during different stages of higher education.

In the hands-on part of the workshop preventive pedagogical strategies will be discussed in relation to particular disciplines and learning contexts. The questions participants will be challenged to consider are following: How promoting academic integrity can be expressed as learning outcomes on different courses to ensure the knowledge of source use (Pecorari, 2013), develop good research practice, and foster academic integrity in general? What questions should be asked before choosing appropriate learning activities, what tools and activities are most adequate? How different practices in assessment design and practices can affect academic integrity and make it harder and undesirable to engage in misconduct?

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PAEB_142

Journey from classroom to workplace - one student's story

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Keywords: Academic Integrity, Contract cheating, Plagiarism, Workplace Ethics

This paper uses narrative writing to track journey of one student's perceptions and understanding of academic integrity values through practice immersion and experiences and how that is carried into workplace. Literature has posited that narratives "offer increased comprehension, interest and engagement" (Daglstrom, 2014). The paper uses story telling as a unique methodology to capture the student's perceptions and emotions and provides a fascinating insight into the kind of experiences that shape students' understanding of academic integrity values, thus posing as valuable contribution for academics and research globally.

My journey from classroom to workplace

"Do not be misled...Whatever a person is sowing, this he will also reap." - Galatians 6:7.

If life can be likened to a fruit - integrity would be its seed. The seed in most fruits is covered by the fruit pulp, only to be discovered after we consume the fruit. It may not be visible, but it is the core and can grow to life. Integrity is the core of a person's character, his intentions and deeds. Integrity can determine authenticity, trustworthiness and dependency of a person. Yet, it is not deemed as a 'practical' or a 'cool' concept. In my life, I learnt the words of Galatians 6:7 by heart early on, but understood the importance of it much later.

Right from primary school, I loved to learn at school. I loved so many of my teachers and still remember them in nostalgia. My learning was sometimes determined by my love for the subject or the teacher who taught me. To the extent, if my mother taught me something at home, I wouldn't really listen but if my teacher told the same thing, I wouldn't think twice. Amongst the subjects I loved was Moral Science. It was an exclusive subject taught in Indian Schools and had a final exam. It was easy to score and had value based stories that students loved. But no teacher or moral science topic taught me integrity. It was not even a concept for consideration.

The first time I encountered integrity was on an exam paper that said: "Zero marks will be awarded for students who engage in unfair means and the paper will be cancelled." So cheating or compromising your integrity was a self-understood value. The reasoning would be: "Cheating is wrong and if you do so, you will be punished." There was always an underlying fear of being caught cheating if you had the courage to do so. As I progressed to middle and secondary school, subjects became more difficult to cover and understand.

From a society that judges quality based on marks, high net worth students are the ones that score the highest marks. With time, pressure only increased stress levels for students and parents in a race for the top rank. No matter how hard one would study, there were so many factors that determine your marks in the subject such as:

- understanding from the teacher who taught that subject,
- the teacher who sets the paper,
- the teacher who would examine answer sheet (not necessarily the one who taught would examine the paper always),
- the private tuition teacher who taught the same concept, and
- student stress management capabilities.

If you notice, none of the above factors are related to real time learning - they are related to scoring of marks in an exam. As students, all we were worried about were - marks.

At one tipping point, we students gave up studying for exam. The pressure turned into courage - to do the wrong, to cheat. If one could spend time, think of 'sharing' strategies - marks would flow automatically. Factors that determined how well one could cheat were:

- the subject,
- your friendship with the smartest kid,
- the seating of your best friend,
- the type of 'strategy', and
- the invigilator in the exam hall.

After all, sharing is caring and students cared about their marks, the smile of approval from their parents and of course their student net worth. No student was in a position to think of real and long term consequences of such measures and neither was I.

Secondary school 'sharing' can also have a different purpose. It may not even be considered for marks but to be 'cool'. It was a 'cool' act and labelled you 'courageous'. Often instigated by the popular students who did not have 'time' to study - this was an opportunity not to be missed if you wanted to be a part of the gang. Finding different ways to cheat was cool, executing the plan was even cooler. 'Dodging the invigilator and sending signals on which answer you want' sent an adrenaline rush through teenage spines. I am not an angel, I did try it out.

I hated Physics - I still do. But I loved it once because my teacher, Miss X, made it practical and enjoyable. But her tests were tough or so we thought. So once when I did not study enough, I decided to try it out. The gang was there, my best friend was there and they all had a plan. It was too good to miss and I had to prove my mettle to be a gang member too. The test day arrived and we all executed it with ease. I remember the feeling of accomplishment I had - Miss X did not find out. Next Physics class was the climax, she was going to handover our test results and we were anxiously waiting. I still remember the scene: Miss X walked into the class, we wished her and for a good five minutes only kept the papers down and

looked at us in silence. Anxiety was at its peak because her face suggested that we had fared badly in the test - until she uttered those terrifying words. «I know what happened - Your papers are too similar. I will give you until next class to own up.»

All the gang members gazed quick looks at each other. Little did I realize then, I had not done badly in a test - I fared badly in life. After so much thinking, I went alone and owned up my mistake even though I knew I was going to be reported on. But Miss X did the unbelievable - she didn›t report to anyone. I heard there were others who owned up for some reason, but she did not say one name. Miss X did not use the fear route, her action taught us the value of actions. All she told me was: «don›t do this next time - you will go nowhere in life.» Believe it or not, that was the last time I ever did so. Cheating did not take me anywhere that time and I realized there was nothing ‹cool› about it. If one facet of integrity was refraining from cheating at school - I had learnt my lesson.

University came with its own challenges of a new environment and new subjects but that episode was unforgettable to every last detail. Essay mills and vendors were available with assignments to ‹purchase› from but it was not a long term solution. I could ‹purchase› an assignment but who would do my assignments later in life?
It was in university where I was introduced to academic integrity as the name of this entire proposition and realized it was the need of the hour than ever before.
But integrity did not stop at university too.

As a young graduate eagerly waiting to carve her niche in the corporate world, landing into a job was the next step. I was accepted into a start up digital agency that was dealing with digital marketing solutions. I was appointed as a Coordinator and Writer for websites and social media. It was a challenging role for me with its own temptations. I had to be on my toes, attending to client›s requirements and multi-task.

Writing being one of those tasks, was often deemed the easier of the lot. Other writers were at constant pressure of completing their writing deadlines. I was not an exception; pressure did get to me, though. In an effort to help me out, my management suggested that I take some content from the internet. I was quite surprised that they were ready to copy and paste it from an unknown website, change a couple of words just enough to escape from text matching websites. The work was comparatively menial, so they felt this would save a lot of time for me. But what they didn't realize was this - even if the client was not really going to check the authenticity of the content, there was a sense of trust involved. Although they never pressured me, I must admit that as tempting as it got, I was not going to do it. This was because there is an image of the company I was working with and I did not want it to be tarnished. There were times when they felt I was little extreme, but in the end when the client lauded the work, they too felt I had a point. To me copied content was like stealing if I did not reference my work; and it was not going to define another company's work.

Integrity took a new turn and it was the ultimate peak at work. What often amazes me in this

ordeal is how they treated plagiarism - the fact that everyone knows shoplifting is wrong but not 'Netlifting' content or someone's work still boggles me. Principally, they knew that it was wrong but it was not practical enough to go the extra mile.

So does that mean one can steal from a grocer if it was 'practical' and if no one was watching? As ironic as it sounds, it is the attitude that plays an important role in determining integrity at work places.

As the saying goes, "you don't make a mistake twice, the second time you do, it's a choice". So is integrity a choice in today's world. I learned that if you are aware of integrity values, you can't make a mistake the second time. It starts from within - the attitude. And just like respect, don't expect integrity from the opposite side if you don't give it. I have learned to demonstrate integrity in my practice and expect it back. If you are denied it, demand it because the world needs it.

In the end, I believe a variety of experiences shape how we understand integrity values, particularly in the academic arena. One teacher changed my outlook. But how many students are that lucky in this curricula?

If a student is introduced to integrity values for the first time in the university, is our education system really preparing honest, fair, trustworthy, courageous, respectful and responsible individuals? It does not stop at school, it carries deeper consequences into the workplace and beyond and I hope my story provides the insight to teachers and decision makers to realise the importance of making an active effort to introduce integrity to students at a young age.

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PAEB2020 Conference Proceedings

Sub-Theme: Integrity, Sustainability and Well-being

PAEB_71

Contribution of librarians in the prevention of plagiarism: the case of Lithuania

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Keywords: academic integrity, librarians, plagiarism prevention, preventive measures

Introduction

The role of the today's library is not only to maintain information resources and provide services and guidance to users, but also to contribute to the education of members of academic community on issues of academic integrity. From the first sight, the research question could seem too simple, but not simplistic. In the study we explore how librarians could contribute to the promotion of academic integrity in their higher education institutions. It is very likely that such an issue is minor in Western countries; however, this is very relevant in Lithuanian higher education institutions. In this paper, we attempt to figure out points of view of librarians about their roles, particularly how they see their efforts to contribute to the promotion of academic integrity. In addition to this, we also investigate what preventive measures against academic malpractices, such as plagiarism, are taken by Lithuanian higher education institutions.

Methodology

Data were collected using a survey which was completed after the workshop designed for librarians. This workshop was held in English, not mother tongue for librarians, by two lecturers from University of Konstanz, Germany. This is to note that lecturers fulfil their responsibilities in the university library. Therefore, they were invited to share good practice in promoting academic integrity and to encourage Lithuanian librarians to revise their role in academia.

The survey consisted of nine questions – six open and three closed. The first two questions were related to the identification of the respondent's characteristics (such as workplace and area of responsibility). The main part of the survey was designed to find out how the library as a unit of the higher education institution engages in activities related to plagiarism prevention. Respondents were also invited to rate six statements using an interval scale (from 5 "strongly agree" to 1 "strongly disagree" as well as 0 "don't know/can't answer").

Portrait of a Librarian

The survey involved 28 respondents overall, i.e. 22 (78.5 per cent) librarians from universities, 3 (11 per cent) from universities of applied sciences, 1 (3.5 per cent) from a research institute and 2 (7 per cent) from other organisations (e.g. Lithuanian Research

Library Association).

As the core responsibility respondents most frequently identified information literacy and training (34 per cent) and database maintenance (23 per cent). Among the most common areas of responsibilities were customer service and counselling (11 per cent), formation and maintenance of information resource pools (11 per cent), library management (9 per cent) and other areas (12 per cent). Only one respondent testified that s/he is checking intertextual matches using a text-matching software.

Role of Librarians in the Promotion of Academic Integrity

The two-thirds of respondents (21; 67 per cent) indicated that members of the academic community approach librarians with questions on plagiarism. Librarians asserted that they are most frequently asked about compliance with copyright (64 per cent) (e.g. *How to check plagiarism? How to prevent plagiarism?*). The rest of the respondents indicated that academic community is interested in citation styles and/or rephrasing (19 per cent) (e.g. *How to quote correctly? What are the information management programmes?*), and publication ethics gaps (17 per cent) (e.g. *What percentage of plagiarism is allowed? What percentage of self-referencing can be used in the text?*).

Respondents were also asked whether they are facing in-text dishonesty. Half of librarians (14; 50 per cent) answered positively, 12 (43 per cent) responded negatively and 2 (7 per cent) did not answer this question. Respondents most often indicated that the most cases of in-text dishonesty are related to incorrect citation and/or paraphrasing (N=11). Other, more rarely, cases involve: 1) violations of publication ethics, e.g. copying portions of previous publications without providing references to them (N=2); 2) copyright infringement, e.g. copying information from the Internet without citing sources (N=1); and 3) using pictures with the reference to a secondary source or without reference to any source (N=1).

Half of the respondents (50 per cent) indicated that they, or their colleagues carry out activities related to plagiarism prevention for members of their academic community. The most common training provided by librarians is about citing sources, copyright and preventing plagiarism, academic literacy, information literacy and other. Mainly students (e.g. 1st year, 3rd year) are targeted during the training. The frequency of training varies by target group, from once or twice per month in one institution to daily within 2 months in another institution. Teaching staff is less targeted for such a training, e.g. twice or three times per year. Some libraries provide individual counselling and discussion when needed.

In response to a question about other measures to prevent academic dishonesty taken by libraries, respondents most often noted training (61 per cent). Less frequently mentioned prevention measures included individual counselling (17 per cent), use of text-matching software (11 per cent), participation in meetings of academic integrity committee and

public disclosure of ethical infringements (5.5 per cent), observation of an exam as a way to assist teaching staff (5.5 per cent).

18 respondents (64 per cent) affirmed that libraries use a text-matching software while the rest answered negatively. However, some expressed the will to use a text-matching software from the upcoming academic year. Seven respondents indicated that their libraries had access to two or more text-matching software at the same time. Half of respondents affirmed that they use a national text-matching software and another half of them use a foreign text-matching software. This practice evidences that the need of public higher education institutions to use a text-matching software has not changed substantially since the last study conducted in Lithuania (Office, 2019 April). This is to say that 36 per cent of respondents of the current survey and 35 per cent of respondents of a previous study have indicated that they do not have enough resources to purchase a text-matching software, so to use it on regular basis. Nevertheless, in comparison with results from the Office's survey (2018) related to the promotion of academic integrity in national scientific journals, the need to use a text-matching software still remains. Moreover, 47 per cent of Lithuanian higher education institutions indicated that their scientific journals do not use a text-matching software during the peer review of manuscripts.

The library, as a separate unit of the institution, only partially contributes to the implementation of the policy to prevent academic dishonesty (50 per cent of all respondents). One of the means is consulting members of the academic community on issues of academic dishonesty. Over two-thirds of the respondents (78.5 per cent) implement this measure to some extent. Given this fact, the library seems to be one of the most open and accessible units in the institution from which the academic community can obtain all the necessary information on academic (dis)honesty when needed, and this pathway should, therefore, be particularly strengthened (e.g. to deepen not only knowledge, but also creating a positive atmosphere and a culture of collaboration).

Furthermore, 61 per cent of respondents indicated that libraries provide training on writing skills in their higher education institution. Hence, library takes a primary responsibility to train about academic integrity. Therefore, higher education institution should focus on the quality and diversity of such a training, and should provide opportunities to learn to all academia.

Then, by stating that libraries check written works with a text-matching software it is assumed that libraries contribute not only to plagiarism prevention, but also monitor plagiarism practices. In order to reduce the number of ethical infringements through improvement of academic literacy skills in the institution, the library should play a more proactive role in the implementation of institutional plagiarism prevention policy. In addition to this, respondents expressed the need to better involve the library as a unit in the implementation of the institutional academic integrity policy, e.g. 80 per cent of respondents fully or mostly support this idea. In this regard, a mismatch between a reality and an intent

may occur. On the one hand, the library could become a full-fledged actor in the prevention of plagiarism. On the other hand, the competence of human resources should be maintained in the further development of librarians' activities related to plagiarism prevention, and the library should be provided with sufficient technical means, such as a text-matching software.

Observations

Following the workshop and the discussions, several respondents expressed contradictory points of views regarding the role of the library in contributing to plagiarism prevention. On the one hand, according to some respondents, the library should remain a traditional service providing unit, such as the full responsibility should lie with the higher education institution itself. Accordingly, higher education institution should approve the procedure related to the evaluation of plagiarism and then decide which units should implement, but the library should not be among these units. On the other hand, some respondents supported the idea of a today's library and believed that a higher education institution that approved a plagiarism prevention programme must support national academic integrity initiative and pursue homogeneous goals, taking into account good practices of other countries.

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PAEB_72

Guidelines to Recognise Fake Scientific Events

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Keywords: academic community; fake scientific events; guidelines; recommendations

Why now?

The emergence and spread of fake scientific events make worry the academic community over the world. Such events induce negative consequences and currently exceed the number of quality-driven scientific events (Grove, 2017b).

Recently, the international academic community has been shocked by a US court ruling related to the allegedly scientific acting of the company OMICS, a subsidiary of iMedPub LLC. This company has been found to be performing in bad faith, i.e. it got a 50 million US $ fine. This is the approximate amount that this company earned from researchers for publishing their publications in their journals from 2011 until 2017 (Casella, 2019; Timmer, 2019). The manner of this and other similar publishing companies is known to the entire academic community – the manuscript submitted for publication is not peer-reviewed, but promptly published once the fee is paid. Such publishing houses are often described as "predatory".

In 2016 Christoph Bartneck, professor at the University of Canterbury, received a call for a potentially fake scientific event hosted by OMICS. He submitted an abstract automated by iOS software in nuclear physics which would be meaningless even to a non-researcher but was successfully accepted within hours for a presentation at that scientific event (Bartneck, 2016). There have been other similar cases. For example, a non-medical journalist was accepted to a medical scientific event to read a report simply after a short talk with the organisers; evidently, the fee and status of student were enough regardless of the lack of competence in the field (Carey, 2016).

Lithuanian case

The Research Council of Lithuania carries out the evaluation of the activities of higher education institutions, develops and implements measures for financing travelling to research dissemination events, evaluates and allocates funding for research proposals and otherwise contributes to the evaluation and assurance of research quality. Meanwhile, higher education institutions accomplish assessments and calls for various academic positions, evaluate the researcher's or candidate's publications and presentations at scientific events. Hence, for researchers, who are seeking scientific recognition and academic career, publications become an important asset. More importantly, conference presentations are taken equally into

account. Therefore, it is crucial to carefully choose scientific events as participation in fake scientific events can undermine a researcher's reputation and career, as publishing in 'predatory' publishing journals do so. Members of the academic community take a negative view towards such scientific events and identify them as a kind of threat to the quality of science, impeding further research and development (Beall, 2015).

Given the importance of the issue described and responding to the growing concern of the international academic community regarding the uncertainty of scientific events and their compliance with quality standards, the Office of the Ombudsperson for Academic Ethics and Procedures (Office) in Lithuania has developed guidelines for Lithuanian academia (Guidelines) to help them to identify fake scientific events.

Methodological approach

The aim of these Guidelines was to raise awareness of malpractices related to fake scientific events. In order to develop Guidelines, the fake scientific events were analysed in terms of how they are organised, by who, how prevalent they are, what types of events emerge and what kind of participants attend such an event. This was achieved by reviewing the literature which varied from scientists' blogs to scientific and press articles. The next step was analysing and systemising the information gathered.

In order to make the friendly-user Guidelines, the Office consulted national stakeholders, such as the Lithuanian Research Council, the Lithuanian Young Scientists' Union, the Conference of Rectors of Lithuanian Universities as well as the Conference of Directors of Lithuanian Universities of Applied Sciences. All these stakeholders were invited to suggest improvements, so to contribute to the refinement of Guidelines.

Types of fake scientific events and types of participants

First, diverse terms related to fake scientific events were identified. The typology and synonymy of scientific events, that have emerged alongside "predatory" publishers over the past few years (Beall, 2015; Laskowski, 2017; Stoye, 2018), are as following: 1) junk conference; 2) predatory conference; 3) fake conference; 4) vanity conference; 5) questionable conference; and 6) bogus conference.

All these terms describe scientific events that operate similarly as 'predatory' publishing houses – a fee opens doors to everyone to an alleged scientific event. Nevertheless, few differences might be distinguished. First, junk, predatory, fake, vanity and questionable events are those which take place but do not meet the standards required for scientific events. Second, bogus conference relates to the behaviour of organisers, such as to send out invitations, to collect the registration fee, but the event itself does not take place, i.e. without any explanation the event is cancelled or even not organised at all (Cowan, 2016). The

general term used throughout the Guidelines to describe all events of this type is 'fake scientific events'.

Then, the profile of participants was assessed. Sarah Elain Eaton, professor at the University of Calgary, identifies three types of participants in fake scientific events: 1) cognisant, 2) pseudoscientists, and 3) naive, the most vulnerable group of potential participants. The latter are described as inexperienced and / or young researchers seeking to be recognised within the academia, or whose abstracts have been repeatedly rejected, and are tempted to present their research and present it at a scientific event without realising it as a fake scientific event (Eaton, 2018). Furthermore, with a reference to the qualities inherent to a cognisant researchers, these researchers might be treated as the riskiest to the reputation of research credibility because these researchers are aware of such an event and perceive their involvement in fake scientific events (and/or publishing in 'predatory' publishing houses), but they don't care due to indifference to the quality, but they are rather quantity-oriented.

Distinctive hints

The main features related to fake scientific events are thematic area of the scientific event, organisers of the scientific event and communication of the scientific event. These features serve as a structure for Guidelines.

Features related to thematic area consists of an event scope (e.g. many different, not necessarily interrelated disciplines); mismatch of disciplines (e.g. the research area of the invited researcher does not fully or partially correspond to the thematic area of the scientific event); unheard-of event (e.g. colleagues have never heard of such a scientific event nor attended it) and so on.

Furthermore, organisers of the scientific event are usually a profit-making organisation which hides the nature of its business, gives the priority rather to the location of event (e.g. an attractive resort), but not to academic value; contact information is unclear and so on.

Then, communication of the scientific event is inherent in inconsistent language (e.g. many grammatical errors); website and email letters are formatted very primitively; information about the scientific event is distributed via spam emails and so on.

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Workshop on academic integrity self-evaluation tools

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Keywords: Academic integrity; Higher education institutions; Researchers; Self-evaluation; Self-evaluation tools; Students; Teachers

Academic integrity is fundamental to maintaining standards in Higher Education Institutions (HEIs) and underpins the quality of teaching, learning and research. It is important for HEIs to implement institution-wide strategies and policies for promoting a culture of academic integrity. At the same time, promoting and maintaining academic integrity has become one of the key challenges for HEIs today. Many recent research projects provide evidence about dishonest practices of students (e.g. Bayaa et al., 2016; Bretag et al., 2018; Glendinning, 2013; Rodafinos, 2018), questionable practices of researchers (e.g. Agnoli, et al. 2017; Artino, Driessen, & Maggio, 2018), inconsistent institutional procedures (e.g. Exemplary Academic Integrity Project, 2013; Foltýnek, et al. 2018; Glendinning 2015; Hua & Sun, 2017; PAICKT, n.d.) and other threats to academic integrity. Breaches of academic integrity undermine the credibility of HEIs and their communities, as well as impacting on the reputation of the higher education sector and research in general.

HEIs need to develop effective means to help sustain and improve academic integrity. Regular monitoring and reflection on institutional approaches to academic integrity, including understanding the level of respect for academic integrity in the institutional community, are essential components of institutional policies. Continuous improvement requires the identification of areas potentially at risk and what actions are required to address these risks. In response to that requirement, the European Network for Academic Integrity (ENAI – http://www.academicintegrity.eu) has created a set of on-line Academic Integrity Self-Evaluation Tools (AISETs) designed to explore the status of academic integrity at institutional level and also for individual members of the higher education community.

The tools were developed by an international interdisciplinary team, based on a review of existing academic integrity survey tools, relevant literature and the experience of team members. The set of four self-assessment tools is targeted at students, teachers, researchers, and the institution as a whole. Each AISET is an independent on-line questionnaire designed to be completed by an individual member of the academic community. The questions in each survey focus on aspects of academic integrity corresponding to the daily functions of the

specific target group (Gaižauskaitė et al., 2019).

Each of the four questionnaires is composed of thematic sections of questions supplemented by a system of scoring of answers and linked feedback. Scoring and feedback are provided at three levels: for each question (statement); a summary for each themed section of questions; overall for the whole questionnaire (see Figure 1).

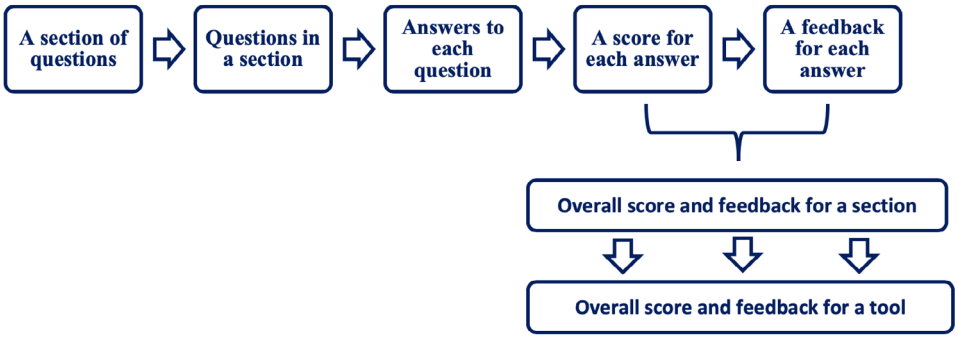

Figure 1. Structure of AISETs.

The scoring system and feedback have been designed to support best practices or detect potential deficits and misunderstanding. The feedback provides tailored guidance in areas that may need improvement (at personal and/or institutional levels). Feedback also includes suggested resources that may be useful in relation to each thematic section. The tools for students, teachers and researchers are intended for individual use and give personal feedback. The institutional tool is aimed at institutional leaders and provides feedback on the effectiveness and maturity of commitment by an institution in promoting and upholding academic integrity (Gaižauskaitė et al., 2019). Figure 2 details the content of each AISET.

Scorecard for Academic Integrity Development (SAID): Self-Evaluation Tool for Institutions	**Academic Integrity Self-Evaluation Tool for Teachers (AISETT)**
• Institutional governance and strategic commitment towards academic integrity • Policies, sanctions and procedures for academic integrity • Engagement and buy-in for deterring academic misconduct • Institutional culture of integrity and appreciating the value of learning • The role of students in academic integrity • Transparency and communication • Enhancement of strategy, policies, procedures and systems • Institutional engagement with research and development on academic integrity	• Approach to teaching and student motivation • Interaction with students and guidance about integrity • Awareness of institutional policies • Dealing with student dishonesty • Knowledge and skills about plagiarism and academic writing
Academic Integrity Self-Evaluation Tool for Students (AISETS)	**Academic Integrity Self-Evaluation Tool for Researchers (AISETR)**

• Study skills • Academic writing • Plagiarism	• Policies and practices • Questionable research practices • Reporting and publication • Commitment to responsible conduct of research

Figure 2. Content of AISETs.

AISETs are freely accessible on ENAI website (http://academicintegrity.eu/survey/) as interactive online tools. Each user can freely decide which tool or tools are most useful for his/her purposes. The tools are administered individually thus answers and feedback are only provided for consideration of a user of a selected tool.

Though we intended to design tools that could be applied in diverse institutional, cultural contexts or across scientific fields, we do acknowledge potential limitations in this regard (Gaižauskaitė et al., 2019). Therefore, we intend to continuously work on improvement of the tools making them more user friendly, useful and applicable.

The workshop will engage its audience into mutually beneficial exchange. We will shortly introduce the tools to potential users and help them learn more about good practices of tackling academic dishonesty. However, the main purpose of the workshop is to collect informed feedback inputs from qualified persons. The feedback from the audience will help us further establish validity and reliability for the tools and develop their features for a better usability.

The workshop will include three parts:

1. Short introduction of the tools, their content and application.
2. Moderated discussions with participants in smaller groups. We will ask potential workshop attendees (and other interested conference participants) to try-out the tools prior to the workshop and provide feedback via structured form. During the workshop, we will ask participants to split into four groups (one for each AISET). A moderated discussion in a smaller group will allow exchanging impressions about a selected tool and collect verbal feedback from its users.
3. Concluding remarks and Q&A with the audience.

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PAEB_96

What drives students' behaviour towards plagiarism in Montenegro: The moderating role of text matching software

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Keywords: moderating approach; plagiarism; plagiarism detection software; students' behaviour

The issue of academic integrity has been flourished inside academic society for several decades (Melgoza & Smith, 2008). The academic integrity could be defined as '*the values, behaviour and conduct of academics in all aspects of their practice (teaching, research and service)'* (Macfarlane et al., 2014, p. 341). This remains one of the major global problems in higher education (e.g. the International Centre for Academic Integrity reported that 70% of students cheat during the test), as academic dishonesty influences negatively the credibility of a university at the national and international level (Park, 2003). What more, the continued advancement in technology amplifies the risk to academic integrity. Moreover, some market actors blamed universities for corporate scandals since they failed to foster stronger ethical values among students to prepare them for the workplace (Verschoor, 2003). Accordingly, several scholars confirmed (Carpenter et al., 2004; McCabe et al., 1996; Nonis & Swift, 2001) that students who cheat in the academic setting are more likely to engage in unethical behaviour while in the workplace.

Given the importance of the issue, researchers have determined reasons for non-academic behavior, frequency of cheating, impact of sanctions (Davis & Ludvigson, 1995), compared strategies that have a better effect on students, e.g. fear-based vs. participation in discussion of cases (Compton & Pfau, 2008), established relations between the moral perspective of students and the circumstances that lead to cheating (Eisenberg, 2004). Some researches differentiate between the planned and the so-called spontaneous cheating (Genereux & McLeod, 1995).

Plagiarism is considered as one of the most common forms of academic dishonesty (Lathrop & Foss, 2000; Park, 2003; Wilcox, 2005; Hodges et al., 2017). Accordingly, working on the sample of around 5000 students, McCabe et al. (2001) found that more than 65% students plagiarize on their written essays. What more, scholars argue that plagiarism is on the constant rise due to the possibilities provided by Internet (Howard & Davies, 2009; Towneley & Parsell, 2004; Bradley, 2015; Rogerson & McCarthy, 2017). This is in line with Wang (2008)'s findings who reported that approximately 30% of students used ideas, 15% of students used text and 5% of students used projects from the Web without indicating appropriate references. As explained by Wilcox (2005) the Internet provides easy access to information, it also gives the impression that one may appropriate others' ideas without

attribution since it can be access easily. Furthermore, the author stressed that easy access to information is at the heart of many incidents related to plagiarism. Additionally, Ellery (2008) found support for positive correlation between the frequency of Internet use and students' plagiarism. Therefore, special attention has been dedicated to establishing profiles of those who plagiarize (Hodges et al., 2017). Yeung et al. (2018) found that poor information literacy and language abilities factors are behind plagiarism. Jones (2011) identified reasons why student plagiarize such as being too busy and the need to earn good grades.

Batane (2010) revealed that 75% of the participating students (in the survey) reported that plagiarize mainly because of laziness. Investigating two-year students' self-reported perceptions of acts of plagiarism, Ferguson (2010) found that demographic traits such as age and gender were related to the students who chose to engage in self-reported acts of plagiarism. Using a series of group interviews, Devlin & Kathleen (2007) argue that contributing reasons for plagiarism are: institutional admission criteria, student understanding of plagiarism, poor academic skills, a range of teaching and learning factors, personality factors and external pressures. McCabe (2005) concluded that the reasons driving students to plagiarize are related to the increase of competitiveness, pressures to achieve academically, the knowledge that their peers also plagiarize without being caught and possibility to obtain someone else's work easily. Underwood & Szabo (2004) recognized fear of failure as the main factor that increases students' probability to plagiarize. The authors further explained that the fear could be associated to many different repercussions such as parents' disappointment, scholarship loss and student not wanting to fail the course. Weinstein & Dobkin (2002) corroborated that students 'attitude towards plagiarism increases as the likelihood of being caught is low and as the punishment is defined as minimal. Moreover, Davis et al. (1993), working on the sample of 6000 students, found that 36% of students indicated that would plagiarize in order to pass a certification test.

One of the most utilized mechanism for fighting against plagiarism is Turnitin software (Bradley, 2015). Turnitin is developed by PhD students from the University of California, Berkeley in 1998. Today more than 30 million students are using the software in 15,000 institutions and 140 countries. A part of its disadvantages, the software is considered as important device for plagiarism prevention (Groark et al., 2001; Batane, 2010). In the same vein, several scholars suggest that when student are aware that their writing assessments will be checked for possible plagiarism, they are less likely to plagiarize (Martin, 2005; Braumoeller & Gaines, 2011). In other words, student awareness of the existence of plagiarism detection software serves as an essential deterrent of plagiarism (Burke, 2004). However, on the other hand, as underlined by Willen (2004) even when students are aware about practice regarding plagiarism prevention, they still may plagiarize when under pressure in order to perform well. Grebing (2015) stressed that there is a gap in the literature regarding the effect of online tools on changing student behaviors and perceptions associated to academic dishonesty. Accordingly, it is crucial to understand if the students' behaviour towards plagiarism is dependent regarding their knowledge and awareness about

plagiarism detection software.

Although plagiarism is recognized as a global problem, Carnero et al. (2017) argue that in developing countries, the problem is poorly discussed what hinder the definition of preventive strategies. What more, den Ouden & van Wijk (2011) underlined that the notions such as authorship, copyright and intellectual property have come into existence only recently in Western culture while in Eastern cultures these notions are still less common. Actually, as explained by Brennan (2015) student examination, in Eastern countries, is not relied on writing essays what makes their understanding limited concerning plagiarism and authorship.

Academic integrity movement has started in Montenegro in last few years. For instance, the recognition of academic integrity importance in Montenegro is supported by the fact that the Government of Montenegro through the Ministry of Education has adopted the Law on Academic Integrity beginning of 2019. Additional support could be found by the fact that all universities (4 universities – 1 public and 3 privates) in Montenegro obtained software for the plagiarism detection (iThenticate) via Ministry of Education as a part of a project supporting the development of higher education and research potential entitled *'Enhancement of HE Research Potential Contributing to Further Growth of the WB Region*'. Accordingly, University of Montenegro adopted the decision to use iThenticate software in April 2018. The University organized several seminars, workshops, roundtable dealing the issue in last 18 months. Moreover, the University has certified in the field related to academic integrity by the Institute for Research and Action on Fraud and Plagiarism in Academia, University of Geneva.

However, the deeper research-based analysis on academic integrity in Montenegro is not realized yet. As indicated by Cortes-Vera et al. (2018) there is lack of studies on the specific causes behind plagiarism. In order to build an environment that will integrate academic behaviour as integral part of teaching, learning and research that is suitable for Montenegrin context, it is necessary to provide research- based evidence that would ground further recommendation on the issue of academic integrity. Therefore, using data on students from University of Montenegro, which is the largest university in the country (enrolling around 80% of student population), the main objective of this paper is to determine the prevailing students' behaviour towards plagiarism. In addition, even that plagiarism detection software can not eliminate the problem of plagiarism completely (Carroll, 2009), it is important to analyze moderator effects of the detection software when examining the predictors of students 'behaviour towards plagiarism. Notably, the importance of moderator analysis is accented by Cohen et al. (2003) who argue that moderating approach is *'at the very heart of theory testing in the social sciences'* (p. 255).

Accordingly, the present study is twofold: (1) to identify students' behaviour and socio-demographic characteristics that drive them towards plagiarism (2) to analyze the moderating role of Turnitin software. In general, finings obtained thought Structural Equation Modeling

(SEM), will help us to better define strategy related to the quality of research and higher education in Montenegro by spreading the culture of academic integrity, promoting ethical behaviour and preventing plagiarism and other types on non-ethical practices in academic work.

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PAEB_104

Web analytics for ENAI Pages

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Keywords: academic ethics, web analytics, internet marketing

Nowadays, internet marketing is an essential part of the business marketing and plays an important role in online promoting. It is a set of tools and methodologies used for promoting products and services through the internet. Internet marketing (also known as online or web marketing) includes a wider range of marketing elements than traditional business marketing due to the extra channels and marketing mechanisms available on the internet (Techopedia, 2019). The popularity of internet marketing grew mainly due to the increasing number of internet users, efficiency and easy addressing of the target group.Nowadays, every business or organization must own websites and accounts on different social networks. These media are becoming an important means of communication with the target group. The correct setting of ways and forms of communication with the target group is based on a thorough analysis of the current situation. Web analytics tools such as Google Analytics can help in this direction. Google Analytics allows businesses and organizations to get statistics about users of their web sites. Due to this service it is possible to monitor current and historical users' behaviour, their attributes and conversions (Google Analytics, 2019).

The aim of this contribution is to analyse data obtained with Google Analytics tool from the European Network for Academic Integrity (ENAI) website (available at: http://www.academicintegrity.eu/wp/), to graphically present the most interesting results and insights in the form of a poster, and to suggest general recommendations on how to present academic ethics in the web environment.

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PAEB_141

Use of Digital Content in Ensuring Integrity for Teaching and Learning English at the Secondary Level of Education: Perspective of Bangladesh

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Keywords: Bangladesh; Digital Content; English; Integrity; Mixed Method; Teaching- Learning

Research aim and objectives

Aim of the study

The focal aim of the study was to explore the use of digital content (DC) in ensuring integrity for teaching and learning English at the secondary level of education in Bangladesh.

Specific objectives of the study

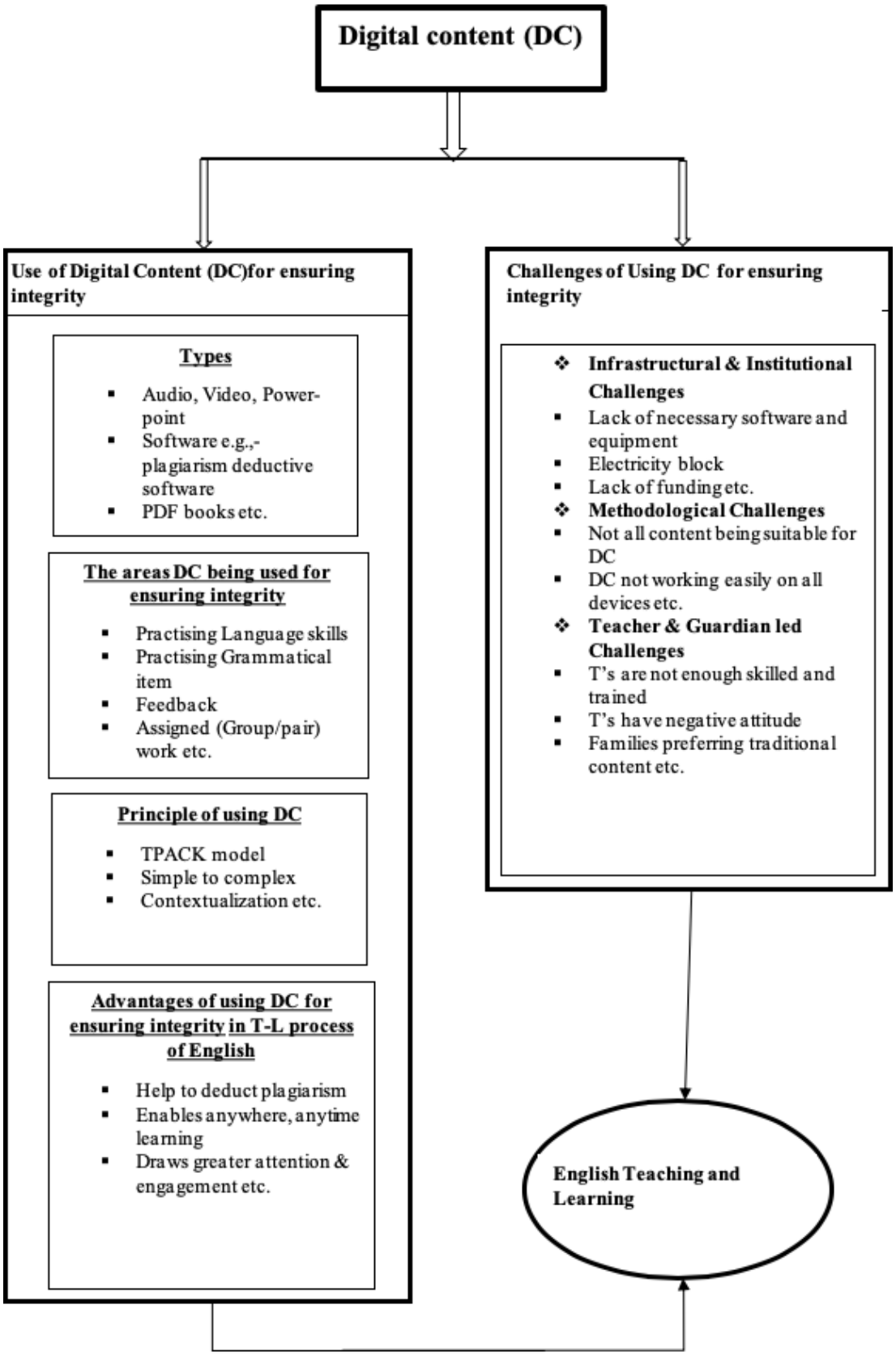
The specific objectives of the study were:

- to explore the actual use of digital content (DC) in ensuring integrity for teaching and learning English at grade IX-X
- to find out the challenges of using digital content (DC) in ensuring integrity for teaching and learning English at grade IX-X

Conceptual framework of the study

A conceptual framework provides a total idea about the research at a glance. Based on the review of the literature, research objectives and research variables, a conceptual framework was developed to guide the conceptualisation of this study which derived from mapping the issues that impacted upon and influenced the conceptualisation of this research. It is mentioned below:

Figure 1: Conceptual framework of the study



Source: (Authors)

Methodology of the study

Nature of the study

Gay and Airasian (1996) noted that the nature of the question or problem to be investigated determines whether the study is qualitative or quantitative.

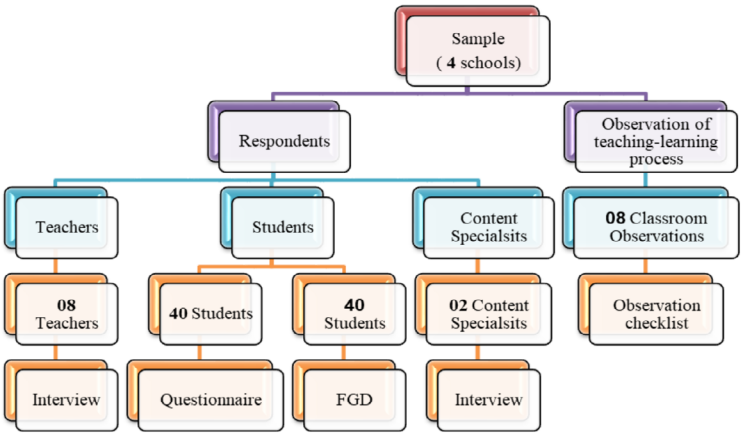
If we look back the specific research objectives, we understand that the first research objective which seeks to explore the actual use of DC in ensuring integrity for teaching and learning English demands both quantitative and qualitative data to depict a holistic picture.

The last research objective inquires to find out the challenges of using DC in ensuring integrity for teaching and learning English which needs qualitative data as well as quantitative data. So, ultimately all the research objectives deal with both quantitative and qualitative data. As the research needs mixed type of data, so the whole research had followed a mixed method approach. To be more specific, this study employed a mixed method research design.

Sample design of the study

For this study, the schools were chosen conveniently: total 4 schools, 2 from Dhaka city and 2 from Chandpur district of Bangladesh. Teachers, content specialists and classes were selected purposively. And from each school 20 students were selected through random sampling. The whole sample design of the study is depicted below:

Figure 2: Sample design of the study



Source: (Authors')

Data processing and analysis technique

Two types of analyses were conducted in this study- the Quantitative data was analysed using Quantitative approaches of analysis and qualitative data in qualitative approach.

Scaffolding of the study

Table 1: Tools, Data sources and Research objectives

Research Objectives	Tools	Data Source
to explore the actual use of digital content in ensuring integrity for teaching and learning English at grade IX-X	Semi-structured Questionnaire; FGD; Classroom observation Checklist; Semi-structured interview schedule.	Students; Teachers; Content specialist
to find out the challenges of using digital content in ensuring integrity for teaching and learning English at grade IX-X.	Semi-structured Questionnaire; FGD; Classroom observation Checklist; Semi-structured interview schedule.	Students; Teacher; Content specialist

Source: (Authors')

Results and discussion of the study

Major findings related to the specific research objective one

The major findings about the actual use of DC in ensuring integrity for teaching and learning English at grade IX-X comprise of the following (organized as to significance):

- Maximum Students (77.50%) and teachers (7 out of 8) are acquainted with DC and integrity in education.
- In most of the schools {maximum teachers (6 out of 8) and students (55%) have said in favour of this} DC is used for teaching and learning English, at a time, teachers consented that DC
- Although most of the schools used DC for teaching and learning English but the frequency of using DC is very rare. (In favour of this statement respectively 3 out of 8 teachers and 40% of students have given opinion.).
- Power point (respectively said by Teachers & Students 36.37% & 40.91%), video (equally said by Teachers & Students 27%) and audio (respectively said by Teachers & Students 22.09% & 31.82%) are vastly used types of DC in teaching and learning English for grade IX-X.
- Most of the teachers (7 out of 8) use free plagiarism software for tracing out unethical writings in English for ensuring integrity in English subject.
- DC is mostly used for the practising of speaking, writing and listening skills of English.
- DC is used majorly in the areas of delivering lecture, deduct plagiarism (teachers & students respectively say that 21.41% & 22.53%), assigned (Group/pair) work (where teachers & students respectively say that 14.28% & 18.32%) and giving feedback (where teachers & students respectively said that 14.28% & 16.90%).
- Best advantages of using DC in teaching-learning process of English are that DC draws greater attention and engagement, DC help to deduct plagiarism and DC allows to practice independently as well as to work collaboratively.
- Most of the teachers (**5 out of 8**) who use DC follow the general teaching- learning principles in English class.
- Most (**6 out of 8**) teachers take preparation before using DC in English class.

- Most (58.33%) of the students use DC by themselves outside the classroom.
- Most students use offline dictionary (48.28%), e-book (20.69%) and YouTube video (17.24%) as types of DC outside of the classroom.
- In a few cases (22.50%) students get co-operation from their teachers in using DC.

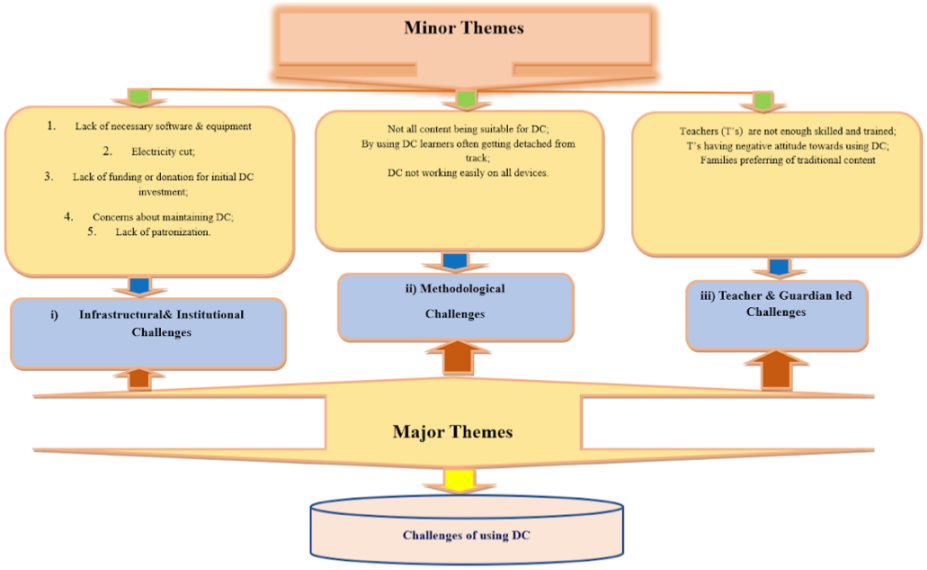
Major Findings related to the specific research objective two

The major findings about the challenges of using digital content in ensuring integrity for teaching and learning English at grade IX-X are summarized below (rank order of significance):

- Lack of necessary software and equipment (infrastructural problem) is the biggest challenge in using DC in ensuring integrity for teaching and learning English.
- DC not working easily on all devices is the second leading challenge in using DC in teaching and learning English at grade IX-X.
- Teachers' attitude (negative) towards using DC and lack of appropriate knowledge and skills are another prevalent challenge in using digital content in ensuring integrity for teaching and learning English.

Other challenges of using DC including leading challenges are presented in the graphical format by segmenting into the major and minor themes (based on first hand data from field work after thematic analysing)-

Figure 3: Challenges of using DC in Ensuring Integrity for English subject



Source: (Authors')

Recommendations and conclusion

Based on the research findings and the discussion on emerging factors resulting from the evidence of gathered data, the researchers have formulated recommendations for future actions to achieve greater impact on ensuring integrity for both the areas of teaching and

learning English at grade IX-X.

- School should be provided with new (ICT and digital) equipment.
- Awareness based initiative e.g. campaign on DC etc. should be taken to change the attitude of teachers and guardians towards the digital content.
- Teachers should get training on how to use DC effectively in ensuring integrity.
- Training programmes on DC should be adapted to the particular needs of students and fit to subjects and institutional related needs.
- Alternative power supply system like generator should be introduced to recover electricity cuts.
- Government and education authorities should allocate resources e.g. plagiarism deduct software strategically and equitably, and should monitor the use of digital content for ensuring integrity.

Use of digital content in teaching and learning English is very much important in this digital age especially for ensuring integrity. It encompasses a great horizon of facilities with its various dimensions. Those are crucially necessary for the teachers and students in the teaching-learning process of English. In Bangladesh present scenarios are not up-to-mark. This research is a small effort to bring it into focus. It will hope that further research study will explore more.

Delimitations of the study

The delimitations of the study are described below:

- **Representativeness:** The representativeness of the participants was the first limitation. Only 90 respondents were involved in this study. It does not give the complete picture of Bangladesh.
- **Coverage:** It is not possible to interpret the findings in light of gender, age, or experience as these variables were clearly not set as selection criteria.
- **Time:** The major limitation of this study is the limited time for conducting this study. A long time research could give us a more effective and viable picture.
- **Level:** Another limitation of the study was that this study was conducted only for the grade IX-X. Further research would be needed to address other grades.
- **Diversity:** Lastly, the diversity of schools was not fully represented in this study. The study mainly focused on mainstream school of secondary level of education.

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We would like to express our outmost heartfelt gratitude to our respected supervisor and we sincerely acknowledge the helping hand of Md. Fazlur Rahman, Professor, Department of Language Education, IER, University of Dhaka, Bangladesh; for being our supervisor and for supervising us. In addition, we would like to acknowledge and thank to the schools' heads and to the supportive participants of this study- the teachers, students, experts who helped us and collaborated with us during the first hand data collection procedure, without

which we could not imagine to accomplish this study.

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PAEB2020 Conference Proceedings

Sub-Theme: Recognising and Nurturing a Culture of Integrity through Innovation

PAEB_95

Visual plagiarism: How to prevent, educate and detect

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Keywords: Academic integrity education; Plagiarism; Visual Plagiarism

Introduction

The definitions of academic integrity and academic misconduct are often the same for text and non-textual work. However, proper attribution when using visual properties in academic and non-academic contexts can be different (Simon, 2016) and is further complicated by the differing ethical, legal and professional standards across disciplines (Blythman, et al., 2007). This interactive presentation will focus on case studies of visual plagiarism as a way to discuss how participants and their institutions can prevent, educate and detect visual plagiarism.

Recently, the Ryerson Academic Integrity Office and the Ryerson Learning and Teaching Office led a group of faculty members from the Faculty of Communication and Design to develop a 'best practices' guide to prevent visual plagiarism. This document is aimed at instructors and faculty to assist them in supporting student use of visuals in their assignments and work (e.g., photographs, maps, screenshots, artworks, digital creations, videos).

During this session, through the use of current case studies, we will demonstrate practical ways to preemptively approach this topic (e.g. academic statements on artistic creation, how to design assignments to prevent visual plagiarism); the current state of the digital world regarding citation and copyright as well as speaking to the latest detection methods. The structure of this session will encourage and provide an opportunity for attendees to share how they are addressing visual plagiarism in their institutions.

By the end of the session, participants will be able to:

- Identify and describe visual plagiarism;
- Assist faculty in educating on the topic and in detecting visual plagiarism;
- Support students in avoiding visual plagiarism.

All attendees with receive the "Preventing Visual Plagiarism Best Practices" resource. Below we describe some of the aspects of preventing visual plagiarism that are described in this document and will form the basis of this session.

Academic Statements on Artistic Creation

For each discipline, Blythman, et al., (2007) suggest developing a statement on the tradition of artistic creation within that discipline and reviewing this with students. The following statement serves as one such example.

Historically, some artists/designers have used copying as an analytical approach to learning. Investigating how an image/artefact was created involves a close reading of which media and methods were used, in which order, and how each was applied. By doing so, you gain material and compositional sensibilities resulting in a technical exercise but not an original work. This practice will recreate the look and feel of something, but it is considered copying.

It is often unavoidable to use another artist/designer's work as a starting point and it is acceptable to be inspired by their work, but students need to understand that for their work to have been "inspired" by something, there must also be "departure". They must move forward in significant ways. A golden rule to follow is that a source image/artefact used for initial inspiration should be changed in several (five to eight) significant ways so that the resulting work is identifiably original and different from the source of inspiration.

Students can do this by changing several areas from the list below: (choose appropriate terms for your discipline from the list below, or add any subject specific terminology). Colour, Composition, Content, Context, Cropping, Fabric, Feeling, Intention, Juxtaposition, Layout, Lighting, Materials, Meaning, Method, Motif, Pattern, Placement, Positioning, Process, Proportion, References, Scale, Selection, Setting, Transformation.

Assignment Design

Good assignment design can help prevent visual plagiarism. For example, by designing assignments that faculty can track from beginning to end, it is possible for the instructor to identify signs of problematic usage of source materials, or copying rather than inspiration. In the words of Blythman, et al., (2007) "if a student must first sketch out an idea, or start with a source and develop and idea from it, or create a mood board, they can be guided away from imitation and copying through questions and suggestion."

Assignment features that prevent visual plagiarism include:

- Scaffolding the assignment by requiring multiple drafts documenting progress. For example, faculty can require that students include pictures (screenshots or photos) of various stages of their visual project, to demonstrate a creative process. This would not be conclusive evidence that something is an original work, but it does make cheating more costly in terms of time and energy as students have to reverse engineer what they are copying.
- Adding a personal reflection component where students discuss the evolution of their ideas and/or a description of the process of creating their image (Academy of Art, 2015).
- Requiring evidence of research, including citations. Faculty can invite a librarian come to

class to review image searching databases and citation practices.

- Specifically mentioning in assignment instructions that all third-party images must be properly attributed and cited. Explicitly stating in the assignment description the penalty for lack of image citation and attribution.

Citing Images

Just as students are expected and required to attribute and cite the source of quotations and ideas they use from others in their written assignments, so too must students properly attribute and cite any visuals they use in their academic work if they were not created by the student. Students must understand that visuals must be cited even if they are clipart, stock photography, royalty-free, open media, or available under a Creative Commons license.

Types of student work where visuals must be cited include: essays, reports, presentations (i.e. slide decks), digital media (e.g., blogs, websites, social media posts, apps). Students don't often realize that the are required to properly attribute all the creators of the visual, which is not necessarily the source from where the student found the image. For example, citing Google for an image found in their image search engine is not sufficient. Also, it is not uncommon with social media posts, for visuals to be shared by people even though they are not the original creator of the visual work. A reverse image search engine can help track down the creators.

Academic styles vary in how and where to cite images, so students should be directed to consult their department's academic style guide, librarian, or their instructor. If there are particular types of visuals that come up often in your assignments, faculty should consider providing specific resources to students to assist them.

Permission to Reuse Images and Copyright

It is important for all to be aware that there are different rules and laws that apply for reusing visuals within academic-only contexts (e.g. in-class or for assignments) versus work created or available for the general public. For academic work, reusing images (with proper attribution and citation) may be allowed without the creator's permission under fair use/fair dealing provisions. If students are creating work that is available for the public to see (such as a website, application, blog, social media post, poster), copyright and trademark laws prevent them from using other people's work without first attaining the explicit permission of all the visual work's creators. Best practice in such situations is to get such permission in writing, such as a via a signed permission form.

In instances of public-facing work where students are unable to discern and receive permission to use a visual from all the image creators, they should be advised to not use such images.

If students are creating any public-facing project using other people's images that may be public beyond the duration of the course or from which they may make money, they should be advised to consult a copyright lawyer.

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PAEB_103

Presentation of Web portal – Support for the victims of academic misconduct

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Keywords: Academic Misconduct; Data analysis; Support; Victims; Web Portal

Introduction

Academic misconduct is a problem that not only degrades academic credibility but also strongly affects all involved subjects (Singh, Remenyi, 2016; Newton, 2018; Bouter L. M., et al., 2016).

For instance, in 2015 Susannah Dickinson, the professor at the University of Arizona [7], was accused of plagiarism when university checked her work for originality and found out, that the work contained 20 % of similarity with her students' thesis. Another "famous" occurrence of plagiarism happened at the University of Missouri, where former professor Ashim Mitra made a profit circa 1.5 million dollars from selling a project based on work of Kishore Cholkar, who developed a more efficient way to deliver drugs through the eye [8]. It is estimated that this work could earn Mitra a further 10 million dollars over the next five years. In these two cases, students were victims of academic misconduct. It can be assumed that victims are often disadvantaged and afraid to point out misconduct of supervisor.

However, there are also cases of false accusations. Ruth McCorkle had shared her work results with one of her students who had later published the results before McCorkle did. This led to the accusation of plagiarism which was followed by a trial where McCorkle successfully defended herself [9].

A similar problem is the so-called 'ghost authoring' when a senior colleague forces the junior researcher to give him credit, even though he did not participate in the research [10].

Besides the cases that can be found in regular media like newspapers or magazines, there are also cases of academic misconduct that are published in academic journals. Hawkes, in his work, mentions researchers from The University of Liverpool (Hawkes, 2018), who pointed out academic dishonesty during the research. However, these types of articles are quite rare. Most of them come from developed countries where copyright law is a thing. On the other hand, to solve the authorship problem in less developed countries is often considered as the Sisyphean task. Another possible reason is that the university institution does not want to public these cases because it creates a bad image of the institution.To conclude, gaining

[7] https://unicheck.com/blog/professor-who-plagiarized
[8] https://www.chronicle.com/article/Lawsuit-Alleges-Professor/245807
[9] https://journals.lww.com/cancernursingonline/Fulltext/2017/09000/Can_Mentoring_and_Collabora-tion_Lead_to_a_Charge.12.aspx
[10] https://newintrigue.com/2018/03/10/ghost-authoring-how-professors-steal-the-work-of-their-students/

and collecting information about cases of academic misconduct is not an easy task because there are not many external resources. It is even harder to understand all involved subjects because the situation might not be clear and therefore, it is not easy to determine who is the victim and who is the delinquent.

Presentation goal

The goal of this presentation is to introduce a new web portal that aims to support the victims of academic misconduct. This portal was developed in cooperation of Mendel University, Brno and University of Nicosia, Cyprus and is supposed to gather and present various information about academic misbehaviour to the broader public as well as to students and researches, help victims to seek for individual help and in the future partially automatize the process of helping.

Methodology

To build the web portal, content management system called WordPress is used. WordPress offers various plugins written in PHP, so it is easy to use, and it is relatively fast to build a web page. These plugins are provided by community of developers, and most of them are available for free and are free to alter. It means that they are not specialised in specific tasks which may be necessary to successfully tackle the problem of helping the victims of misconduct. To solve this problem, some plugins had to be modified.

Another problem that had to be solved was the collection of information. In order to successfully solve this problem and be able to publish reliable information at the portal, it was necessary to collect data about various academic misconduct cases. This information was acquired from credible articles as well as from newspapers and magazines. Another opportunity to broaden the database was to examine the journals and academic literature.

The portal was finished and deployed in February 2020. It is necessary to mention that the portal is not only used to present basic information, but it is also used to emphasise the unacceptability of all types of academic misbehaviour. It is also the place where the broader public, victims, and even the researchers can find lot of information about edge cases of misconduct since it is not always possible to draw a clear line between the victim and the culprit. These cases are presented in a playful and educative way so everyone, from high school student to professor can enrich his or her knowledge about the problem. And last but not least, the portal is utilised as a middleman between the victim and community of professionals with an academic background that can provide to the victim useful information about the particular problem he or she is facing to. This creates a possibility to approach every case individually based on the limits of the regional, legal and moral standards of the victim.

It is expected that the collection of data will be a never-ending process that helps in the

the future to tackle more effectively the problem of academic misconduct. Based on the output of the data collection and data processing it will be possible to create a "first aid" toolkit. Such a toolkit might consist of automatic responses to some general questions about academic misbehaviour, patterns that empower and embrace the victims to share the story or chatbot that extracts necessary information about the case from the victim so the case might be assigned automatically to a specific member of the community that is willing to help. After collecting enough data, it will be even possible to use machine learning techniques and find possibly some hidden patterns and connections.

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PAEB_109

The Role of Librarians in Developing the Culture of Academic Integrity in Digital Landscape: Indian Perspectives

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Keywords: Academic Integrity, Academic Dishonesty, Graduate Management Students, Librarian's Interventions, Plagiarism

This paper reports the awareness and feedback on the academic integrity of post-graduate management students of two academic institutions in the capital region of India, namely Delhi-NCR. This study addresses the problem of plagiarism, academic integrity, academic dishonesty, and academic ethics in post-secondary education in India. Librarians have made interventions in sensitizing, training and convincing graduate management students about the necessity and ethical requirements of having academic integrity and honesty in writing research dissertations, seminar papers and project reports. In order to evaluate the effectiveness of the librarian's interventions, statistical analysis of the data derived from user experience surveys, qualitative feedback, and focus groups.

Hundreds of students' responses and related data collected will be analyzed to ascertain the effectiveness of librarians' interventions in infusing awareness and sensitizing mandatory practice of academic integrity in their academic presentation and scholarly publications. The positive learning outcome of the interventions suggest that this approach can be adopted and applied to a wider scope of the academic landscape in other disciplines.

PAEB_117

Testing of Support Tools for Plagiarism Detection

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Keywords: plagiarism detection, text-matching software, software testing, plagiarism

Acknowledgement: We aim to present the findings from our study in the form of poster. At the time of the conference, our results will be already published as a preprint and submitted to a journal. This contribution does not bring any new results. Its purpose is to allow the conference participant to learn more details about our research.

Abstract

There is a general expectation that software must be able to easily do things that humans find difficult. Since identifying plagiarism in a text and finding its sources is not easy, there is a wide-spread expectation that must be simple for software or some sort of technology to determine if a text is plagiarized or not.

According to Fishman (2009, p. 5): "Plagiarism occurs when someone uses words, ideas, or work products, attributable to another identifiable person or source, without attributing the work to the source from which it was obtained, in a situation in which there is a legitimate expectation of original authorship, in order to obtain some benefit, credit, or gain which need not be monetary."

Foltýnek, Meuschke, and Gipp (2019) identify three layers of addressing plagiarism:

1. Plagiarism detection methods, given a suspicious document, are expected to identify possible source document(s) in a (large) repository;
2. Plagiarism detection systems maintain a database of potential sources, employing various detection methods and providing an interface to users;
3. Plagiarism policies define institutional rules and processes to prevent and deter plagiarism.

Software focuses on the second layer but it cannot determine plagiarism. It can

Software focuses on the second layer but it cannot determine plagiarism. It can work only as a support tool for identifying some text similarity that may constitute plagiarism. The question is: How well do the various systems work? How effective they are to find such similarities?

Testing similarity detection tools is not a new endeavor, however, previous studies generally have fallen short in providing satisfactory results. The research was designed based in the analysis of previous efforts and tries to overcome their problems and shortcomings. It is the output of an intensive collaboration and systematic effort conducted by researchers from seven countries.

The study compares fifteen test for web-based similarity detection tools (Akademia, Copyscape, Dodoloc, DPV, Dupli Checker, intihal.net, PlagAware, Plagiarism Software, PlagiarismCheck.org, PlagScan, StrikePlagiarism, Turnitin, Unicheck, Urkund and Viper) using two main criteria (coverage and usability), analyzing testing documents (single-source and multi-source) in eight languages (Czech, English, German, Italian, Latvian, Slovak, Spanish, and Turkish), compiled from several sources (Wikipedia, online articles, open access papers, student theses available online) and using various disguising techniques (copy & paste, synonym replacement, paraphrase, translation, white characters, homoglyphs and image).

Using a rigorous methodology, we classified all systems into four categories (useful systems, partially useful systems, marginally useful systems and unsuited for academic institutions) for each criterion. For the coverage criteria, we tested how much of the known plagiarism was found and found 5 partially useful systems, 7 marginally useful systems, and 3 systems unsuited for academic institutions. For the usability criteria, we assess the testing process, the understandability of report, and other usability aspects we found 5 useful systems, 5 partially useful systems and 5 marginally useful systems.

The most important findings of the study are:

1. Some systems work better for a language or languages family. Coverage of sources written in major languages (English, German, Spanish) is in general much larger than coverage of minor-language sources (Czech or Slovak).
2. The systems performance varies according to the source of the plagiarized text (for instance, most systems are good at finding similarity in Wikipedia texts but not as good for open-access papers, thesis and online articles).
3. The performance of systems is also different depending on the disguising technique used. The performance is partially satisfactory in synonym replacement and quite unsatisfactory especially for paraphrased and translated texts.
4. The systems perform better at catching similarity in multi-source documents than single-source ones. Considering that patch-writing is a common technique used
5. As for the usability perspective, this study clearly portrays how useful the similarity reports and how user-friendly the testing process of the systems are. The users can see

which features are supported by the systems and which are not. Also, vendors can benchmark their features with other systems.

Based on our results, we offer the following recommendations to the vendors for the improvement of their systems:

1. Consider employing semantic analysis techniques to successfully detect all types of plagiarism, particularly those coming from translation and/or paraphrase.
2. Identify the original sources of plagiarism when a text has been found similar to different sources, for example Wikipedia and a blog article that has copied/used text from Wikipedia, the system should show both as possible sources of plagiarism, prioritizing showing Wikipedia first because it is more likely to be the real source of plagiarism.
3. Avoid asking users to enter metadata (for example, author, subject, among others) in the system along with the text or file as mandatory information. It is good to have this feature, but it should not be mandatory.
4. Design useful reports and documentation. They must be readable and understandable in any format. Special care must be taken with printed (static) forms. It must show users the compromised text (plagiarism suspected) along with the possible sources of plagiarism highlighting the text that seems similar.
5. Distinguish false positives from real plagiarism. Many of these false positives occur due to commonly used phrases within the context or language employed.

We also provide valuable insights to academia, policy makers and users. Particularly, a number of important points for educators need to be emphasized:

1. Despite the systems being able to find a good bit of text overlap, they do not determine plagiarism. There is a prevalent misconception about these tools. In the literature, most of the studies use the term 'plagiarism detection tools'. However, plagiarism and similarity are very different concepts. What these tools promise is to find overlapping texts in the suspicious document. Overlapping texts do not indicate plagiarism all the time. Therefore, the similarity reports of these tools should be inspected by a human being such as a teacher or an academic to decide whether the similarity causes plagiarism or not.
2. Translation plagiarism can be found by a match in references.
3. Another problem related to these tools is the risk of their any possible cooperation with essay mills; this is because technically they can store uploaded documents and share them with third parties. In the 'Terms and Conditions' sections of some tools, this notion is clearly stated. Uploading documents to such websites can cause violation of ethics and laws, and teachers may end up with legal consequences. Thus, users are expected to be suspicious about the credibility of the free online tools before uploading any documents to retrieve a similarity report.
4. Detecting plagiarism happens too late in the academic writing process. It is necessary to establish institution-wide efforts to prevent academic misconduct and to develop a culture of excellence and academic integrity. This encourages genuine learning and shows how things can be done right, instead of focusing on policing and sanctioning.

Considering both the number of participating systems, and the number of testing documents and language variety, this paper describes the largest testing which has ever been conducted. We hope the results will be useful both for educators and for policymakers who decide which system to use at their institution. We plan to repeat the test in three years to learn whether the vendors accepted our recommendations.

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Appendix

Contact URLs for the systems used

Tool	URL
Akademia	paneli.akademia.al
Copyscape	www.copyscape.com
Docol©c	www.docoloc.de
DPV	dpv.openscience.si
Duplichecker	duplichecker.com
Intihal	intihal.net
PlagAware	plagaware.com
Plagiarism Software	www.plagiarismsoftware.net
PlagiarismCheck	plagiarismcheck.org
PlagScan	www.plagscan.com
StrikePlagiarism	panel.strikeplagiarism.com
Turnitin	www.turnitin.com
Unicheck	unicheck.com
Urkund	www.urkund.com
Viper	www.scanmyessay.com

PAEB_134

Triage for the wounded – helping students who have faltered

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Keywords: Academic Integrity, Misconduct, cheating, contract cheating, triage, support students

Academics globally are constantly faced with situations where they have to confront students who may or may not have committed academic misconduct. Academic misconduct is any action that someone commits, thereby giving them an unfair advantage over others in an academic setting. Amidst various types of misconduct exist cheating, fraud, interference, collusion, fabrication and plagiarism (UOW, 2019).

There are several reasons why students indulge in cheating. According to Whitney & Keith-Spiegel, the following are some of the factors that cause students to practice academic dishonesty:

- Peer pressure
- Performance Anxiety
- Inability to multitask / manage deadlines.
- Failing to comprehend terms such as plagiarism, paraphrasing, etc.
- Failing to understand the serious implications of being caught cheating.

(Whitney & Keith-Spiegel in NIU, 2019)

Comprehensive studies such as Khan (2014) also posited over 39 factors that might influence students' likelihood to e-cheat (electronically cheat).
Academics have tried to curb misconduct through various proactive and reactive measures such as:

- Instilling the fear of getting caught
- Talking more about academic dishonesty and the consequences
- Discussing personal consequences in the long run such as getting caught during a job interview
- Empowering honest students to influence their peers
- Introducing a class honor code for major courses, capstones and/or senior seminars in line with professional standards
- Changing assessment designs

(Weimer, M., 2018)

Regardless of the approach undertaken, there remain times when faculty members have to confront situations where students have faltered intentionally or unintentionally and committed misconduct, and "arrange for investigation and inquiry, as appropriate." (Flinders University, 2019).

Research has posited ways by which confrontations, investigations and inquiry impact students. Some studies have highlighted the following:

- Social shame: When a student cheats or is caught cheating, word often spreads across the school or university. This "taints the student's reputation and cause people to question his or her work in the future." (Thompsun, n.d.)
- Denial of responsibility: Students deny taking any responsibility for their actions by insisting that "their cheating was accidental" and they didn't know they were cheating in the first place. (Olafson et. al, 2013)
- Condemnation of the faculty involved: Upon being caught cheating, "students generally deflect blame externally, blaming the instructor for unfairness or poor teaching or unclear grading rubrics." (Olafson et. al, 2013)
- Psychological negativity: Students also experience guilt after being caught plagiarizing or cheating. (Ballantine, et. al, 2018)

In 2018, a school student accused of cheating in exams, committed suicide in Dhaka, Bangladesh (Rabbi, 2018). A series of mishandling of the situation, including humiliation of parents at the hands of the top management, led to the student ultimately committing suicide. In 2019, following a cheating scandal for the California Practice Standards and Jurisprudence Examination for Pharmacists (CPJE), thousands of students stated they had contemplated suicide (Gonzalez, 2019).

It thus becomes vital that institutions provide due support to students when alleged accusations are brought on for misconduct. Although studies have focused on falsely accused students, very little is said about support provided or that should be provided for students who may have in fact committed misconduct.

This paper tracks attempts by faculty who have adopted the concept of a "triage" to develop a support system for all students who face allegations. The word 'triage' stems from the French word trier, which means 'to sort'. According to Lasky, triage is the method that is used in clinics and hospitals to prioritize patients on the basis of how urgent their need for treatment is (Lasky, 2017). When medical staff have limited resources during medical emergencies or war, they use triage as a method of "quickly assessing patients' conditions and ensuring that those in the most serious condition receive treatment first." (Lasky, 2017).

For a western university in a Middle eastern country, the lead faculty trained two faculty members and developed an "Academic Misconduct Case Triage". This mimics the same process from an emergency room in a clinic or hospital to deal with students who have faltered in complying with academic integrity requirements at tertiary education levels.

The triage uses a simple model. As a pilot, the triage was rolled out in two first-year subjects across two semesters. At the beginning of the semester, the students were informed of the support system in place after the academic integrity policy was explained, along with a short over-view workshop on academic writing. During the semester, if a student received an email

informing him/her of a possible allegation, then and after their meeting they were invited to contact the triage for support. A meeting would be set up where faculty could speak to the student. Alternatively, the student had the option to request for a virtual meeting through the learning management system's "link only" option that did not require any sign in. The conversation was always positive; never accusatory. Faculty engaged students, making them feel safe to discuss the case. If, at any point, the faculty felt further assistance was required, then the faculty guided the student to approach the counsellor. At the end of the hour of consultation, the faculty provided the student with tips on academic writing, particularly on how to rectify mistakes made in previous assignment(s). If the faculty felt the student may have been accused wrongly, the faculty advised the student on the policy and to approach the faculty office to understand the appeal process.

In the two semesters that the triage was introduced across the two subjects, three faculty members were approached by students, leading to a total of 79 cases that were offered support. All cases were deemed legitimate. All 79 students used the time to speak to the faculty, and build a rapport. Faculty interview and observations recorded included feedback such as "students opened up when they felt comfortable", "some students asked for more time and came back to talk more about integrity in education", "students felt safe to cry", "students accepted they did not understand the mistake" and so on.

Students provided feedback to queries such as "how did you feel after the session", "was the session helpful", "what was the most useful part of the session", "what was the least useful part of the session" and so on. Not all students who used the triage session gave feedback. However, the rate of response was clocked at 53 out of 79, which is 67%. According to Ohme et al (2005), 66% response rate is suggested as acceptable while researchers such as Love and Smith (2003), and Liberatore et al., (2001) suggested 30% as viable and satisfactory. Based on literature, the current rate of 67% was viable and acceptable for this study.

Qualitative analysis of student comments revealed that students felt the sessions were "great", "very useful", "needed", "saved me", "got to vent". Other comments included "the session helped me see how I went wrong and how I can correct the mistake", "the session was long", "I did not feel shame", "I think this session was a great idea because I felt like someone listened to me", "I did not feel judged" and so on.

Findings show triage for academic misconduct cases is not only a success, but much needed in higher education institutions. The results highlight some very strong and positive responses from the students who attended the triage sessions. They left feeling content that they were not being targeted, but rather walking away having taken ownership of their mistake and learning integrity in the process.

The faculty plan to carry out two more semesters that will have a different set of students to see if the results are consistent with this round. If so, future plans include rolling out the

triage for other subjects.

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PAEB_140

Testing of Support Tools for Plagiarism Detection

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The increase in plagiarism cases among university students is a great concern for educators and policy makers within the federal and private universities in the United Arab Emirates (UAE). Research suggests that students' attitudes toward academic integrity are characteristically more tolerant than the policies already in place in most universities. This assertion can hypothetically intensify the situation that most universities in the UAE are experiencing. Moreover, the presence of a very diverse student body leaves space for validation of hypothesis that concepts of plagiarism or academic integrity is seen differently in different cultures; nevertheless, very little research has been carried out to empirically validate such hypothesis. Moreover, current research in this area has usually been conducted in western universities in western countries and has been focused in a comparison between international and domestic students or native and non-native of English language. As yet, no studies have directly analysed culturally diverse students' attitudes toward plagiarism in their first year of study in a western university in the UAE. This study aimed to measure the students' level of understanding to what plagiarism is. One survey and one quiz were given to 67 students, the data from the surveys was tested against several hypothesis and some descriptive analysis was conducted. The results reveal that the students understand the main concepts beyond plagiarism but confuse its application.

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PAEB_144

Gamifying Academic Integrity – the first steps

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Keywords: gamification, contract cheating, academic integrity, games, proactive training

Extended Abstract for Workshop

Any problem is a problem till a solution can be designed and implemented. This workshop highlights preliminary work done by the working group of ENAI Gamification that aims to explore the possibility of developing and testing a gamified learning module on academic integrity values.

Student cheating is not new. From Bowers (1964) to McCabe and Bowers (1994) and every researcher since, literature has captured numerous instances of self-reported student cheating cases because academics and researchers alike understand the importance of highlighting and speaking out and against misconducts. As technology has infiltrated the world of academia giving rise to Smart Education teaching and learning environments, the challenges have become somewhat more complex and varied (Khan & Balasubramanian, 2012; Khan, 2019).

Neither is contract cheating new. Earliest recorded cases show how fraternity houses used to keep essay mills in their basements and how they would encourage their members to recycle submitted essays (Singh & Remenyi, 2015). Irrespective of the type of misconduct, one thing is for sure. If students are engaging in misconduct, integrity of education is being hit because it is considered to be the foundation of academia.

To help deter students from contract cheating, although recent studies have attempted to aid academics through researching areas such as legal approaches (Draper & Newton, 2017) detection (Rogerson, 2017), analyzing the advertisements (Kaktins, 2018), so on, we believe the focus needs to be more proactive, than reactive. One such method is to design and implement learning modules that train students on academic integrity values and academic writing skills. The Quality Assurance Agency for Higher Education in UK posit "Quality student information and support are central to any strategy aimed at encouraging academic integrity and reducing contract cheating. Providers can foster academic integrity through promoting scholarly institutional values, engaging in dialogue with the student community

and ensuring that academic and professional staff are aware and aligned with a set of common aims and objectives"
(QAA, 2017)

A quick search on various university websites shows most modules focus on promoting studying, writing skills, communication skills, time management and so on. Studies do posit importance of informing students about institutional policies which cover definitions of academic integrity, however, more often than not, there are no modules dedicated to imparting the values to students as a proactive approach. Moreover, a recent white-paper study on the effectiveness of training modules has shown the need to engage students beyond text-heavy, traditional teaching modules (Global Challenges UOWD-UOW Collabroative Project #2018-GC1-ZRSM). The study posits the need for visually engaging, technologically smart, interactive modules that cater to the iGens.

One way to achieve this is to use a digtial disruptor. Digital disruption can be an intimidating phrase, however, it is a vital necessary way of changing how things are done traditionally. One particular digital disruptor, gamification has gained popularity in education in recent years. Gamification, which is implementation of rule of a game along with attributes like points, reward or punishment system into non-game settings, provides an opportunity to solve many problems in the area of education (Lee, J. J. & Hammer). Gamification projects offer students the opportunity to experiment with rules, emotions, and social roles. Games also provide multiple routes to success, allowing students to take responsibility of their own decisions and actions (Locke & Latham, 1990).

Games invoke a wide range of powerful emotions, from curiosity to frustration to joy (Lazarro, 2004). Games also provide positive emotional experiences, such as optimism and pride. They also help students to overcome negative emotions (McGonigal, 2011).

Gamification of Academic integrity has gained some momentum in academia in recent years, with Amada White from University of Technology (Sydney) having created a board-game, Sarah Eaton from University of Calgary (Canada) documenting her experience gamifying an academic integrity workshop for staff, and True North/Carnegie Mellon University's Entertainment Technology Center developing a scenario-based game.

With this understanding, this workshop proposes to explore gamification as a tool to enhancing engagement and commitment of academic stakeholders (students, staff, faculty, management, parents) towards teaching and learning of academic integrity values, thus working towards incorporating a proactive action in building a culture of integrity.

We aim to look at working with the audience to enhance their understanding of gamification of academic integrity values and writing, show stages we are currently using to develop story boards of scenarios for the first phase of the project, that is focusing on contract cheating, and ultimately presenting a sample story board as take away from the workshop.

For Phase One of the project, the working group first discussed the aim of the gamification and learning outcomes expected from the modules developed. Then the group used brainstorming to identify scenarios in contract cheating as pilot test case. This was the big idea. Scenarios are narrative descriptions that provides details of the plot and individual scenes (Kahn & Wiener, 1967). Once identified, the scenario was used to determine and create story board. Story boarding is a process that allows efficient and simple way to develop a game or even a teaching plan (Pradhan, 2018). This allows development of a plan of action, delivery time line, and identifying errors early (Pradhan, 2018).

Using the above method, one scenario was identified which was part of one author's experience. The scenario involved students admitting to not approaching faculty or staff whom they saw as "authority figures" and instead using their mobile phones for easy access to information. This led to students often being presented with contact cheating sites, essay mill portals or academic social networks (such as Coursehero, Chegg, etc). Although students understood these may not have been the most ethical options to get answers, they felt these were "less scary" than talking to someone in position of authority.

Based on this scenario, natural language script was developed which helped to trace out a mind map as shown below.

Figure 1: Mind map for the scenario

Once the mind map was created, it was used to create a story boards.

Figure 2: Story Board

The above example shows how the project is identifying and creating story boards for the gamification of integrity values and knowledge on contract cheating. This is the first phase of the project.

The project is at this early phase where we are now developing such story boards from identifying possible scenarios to highlight. We aim to carry this work forward during the

workshop by taking the audience through the step by step process of identifying scenarios and then developing story boards which will ultimately produce sample story boards as take-aways for the participants and work to add to the database of scenarios for the project's future tasks.

After developing an extensive, inclusive and comprehensive database of such scenarios and transforming them into story boards, the scenarios will be piloted on focus groups of students to capture the effectiveness of the story boards. After eliminating duplicates and non-effective scenarios and updating scenarios based on feedback, the project will then move to its implementation phase where we will develop the game on contract cheating. This is the future scope of the project.

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PAEB_146

Promoting Academic Integrity: A Tale of Two Case Studies

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Keywords: Digital Tools; Formative Assessment; Social Loafing;

Research aims and objectives

Academic dishonesty is a major concern for academicians and institutions. The topic got wider attention in academic literature for decades and a number of studies focus on the new challenges in this domain including the role of technology. Creating an environment that foster academic integrity is important in promoting a healthy learning environment. In addition to the many short-term solutions to eliminate academic dishonesty, it is important to devise solutions that promote long term changes that instill academic integrity practices in students. This paper addresses the issues of academic dishonesty in summative coursework submissions and presents two case studies. The first case study explores the use of technology in curbing social loafing in group assessments. Social loafing is the tendency of individuals to spend less effort when working collectively than when working individually (Karau and Williams, 1993; Smith, 2017). Focus of the second case study is to improve the integrity practices in individual coursework submissions. The second case study aims to identify the ways to integrate formative assessments in the module and develop strategies to improve the effectiveness of these assessments.

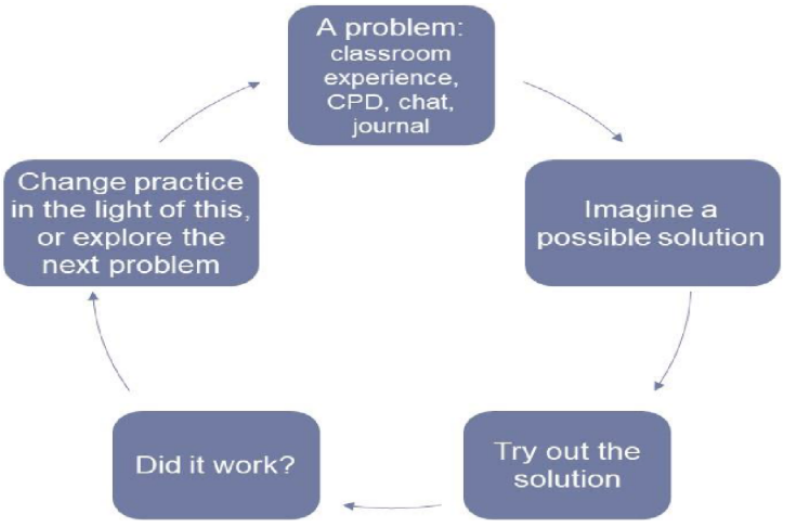
CASE STUDY 1 – Methodology and Data Collection

Student team projects in higher education are prevalent today because of the educational value associated with students working in teams (Synnott, 2016). Research has shown the many benefits students acquire by engaging in team projects in higher education. Managing team assignments had been a problem for academicians especially when little in-class time is devoted for developing team skills among the students. One of the challenges in managing group coursework is to eliminate free riding/social loafing. While several authors have suggested solutions for social loafing, this is still a significant concern for academics in higher education (Aggarwal & O'Brien, 2008). One of the main concerns for academicians is ensuring fairness in marking in group assessments. This study tries to explore the ways to curb social loafing in summative group tasks with the help of online tools and e-learning platforms.

The study follows action research methodology as it focuses on studying a real university or classroom situation to understand and improve the quality of learning, explore the problem, it causes, and possible solutions. The action research process followed in this study is given below in Figure 1. It starts with identifying the problem, explores the solutions, experiment, evaluates the outcomes, and refine the practices. Literature is reviewed to identify the causes

and solutions. Discussions in the action learning sets and peer interviews helped in further in refining the solutions.

Figure 1: Action Research Methodology (McNiff, 2013)



Experimented Interventions

The solutions identified from the literature were discussed and debated in various action learning sets. The inputs received from action learning sets were very helpful in converting the ideas to actual solutions. The study proposes three main methods for minimizing/ eliminating social loafing. Studies have reported that social loafing can be eliminated by making the individual outputs identifiable and evaluating the output through comparison with the outputs of their co-workers (Harkins and Jackson, 1985, O›Leary et al., 2017). Three methods identified based on this include,

1. Communicating realistic expectation of group work is necessary to overcome group fear and to improve the standard (Burke, 2011). The solution is to create a peer evaluation of sample coursework and doing it with the groupmates to develop team building skills. Online and offline platforms were used to create student-led peer feedback sessions for a task similar to the coursework submission.
2. Using Moodle or Unihub, the learning management system to create online reflective blogs to update the reflection on their contribution every alternate week. One of the main solutions proposed was identifying the individual contribution in the coursework. The existing coursework marking scheme was modified to include an individual component with 5% marks on individual reflection. The reflection task was converted into four reflection blogs to update the progress of the individual contribution towards the group work using the Moodle blog feature.
3. Splitting the assignment into a set of sequential tasks each with a deadline, and assessing the individual contribution using online tools such as Google Docs and Unihub which capture student activity logs. This was an important step to monitor group activities when they are outside the classroom. This study explored the possibilities of using Google

Drive as a project management tool for monitoring the coursework status. The project management principles were used for the same. Coursework was split into different tasks with deadlines. Individual student activities were identified with the access logs. A separate Google Drive folder was created for each group, and only the group members of a particular group were given the edit access for the same.

Analysis and Results

Independent sample t-test is performed to compare the results of the treatment group with the control group. Coursework marks in percentages from both the groups are collected to identify the effectiveness of the proposed solutions. Results indicated a significant difference in the marks of the treatment group (67%) compared to the control group (61%).

CASE STUDY 2 – Methodology

This study focuses on the use of formative assessments in improving academic integrity in individual coursework submission. This study also follows action research methodology explained in Figure 1. Formative assessments have become an integral part of teaching and learning in higher education (Nicol and Macfarlane-Dick, 2006). The objective of the formative assessment is to aid student learning by generating feedback information that is of benefit to the students and teachers (Juwah et al., 2004). For students, it enables them to restructure their understanding/skills and build more powerful ideas and capabilities, whereas, for teachers, it allows them to understand where students are experiencing difficulties and realign their teaching in response to learners' needs (Juwah et al., 2004). However, there are growing concerns in the literature with regards to the use and effectiveness of formative assessments (Hunt and Pellegrino, 2002; Ginsburg, 2009; Bennett, 2011). Some of the concerns in formative assessments include a lack of student participation, students not seeing the need for it, its time consuming, and lack of helpful feedback.

The objectives of this study are two-fold: 1) identify and incorporate appropriate formative assessments to the module, 2) develop strategies to improve the effectiveness of the assessments.

Identifying and incorporating suitable formative assessments

Evidence from the literature suggests that the type and nature of the formative assessments, and how its embedded in the module can determine the effectiveness of the assessment (Bennett and Gitomer, 2009). It is important to establishing a link between formative and summative assessments. Specifically, different formative assessments should be integrated to enhance learning and performance in summative assessments. Overall, the following formative assessments are introduced in the module.

a. Online learning blog- Students are required to maintain online learning blog for the duration of the term. In the blog, students are expected to reflect on their experience and

learning in the module. Each student must complete a minimum of at least 4 reflective blogs in the term.

b. Online week- students are expected to interact with other students in the class on several discussion topics. They are required to make three posts and needed to respond to the posts of three others. The reading materials are provided upfront.
c. Presentations - Each student is required to present their coursework. The presentation should follow the same structure of coursework. Each student is allocated 10 minutes for presentation, and 5 minutes for feedback immediately following the presentation.
d. In-class group activities- Throughout the term, students are given several in-class group activities such as Jigsaw reading.

Improving the effectiveness of the aforementioned formative assessments

Several strategies were identified from the literature, action learning sets and discusson with colleagues which includes pedagogic, motivational, coercive, and technology-enabled strategies. The interventions devised for improving the effectiveness of formative assessments are as follows:

a. Made the formative assessments mandatory, and a pre-requisite for submission of summative assessments.
b. Repeated, concerted efforts were undertaken to increase student awareness on the benefits of participating in formative assessments and to demonstrate them the coherence/ connection between the different formative assessments and how is useful for their summative assessments (e.g., at the beginning of every class, few minutes were dedicated for discussion on formative assessments; close follow up and reminder emails were sent to students to complete their formative assessments; previous statistics showing the correlation between student participation in formative assessments and student performance was shared with students)
c. Students were given the opportunity to negotiate the deadline for the formative assessments.
d. Provided timely, constructive feedback for students on their formative assessments

Conclusions

The two case studies shows different approaches to combat academic dishonesty in both individual and group coursework submissions. The paper also highlights the importance of action research as a method to improve academic integrity. The approach adopted in this study and the findings are expected to be useful for academics facing similar challenges. It provides a starting point for further exploration in improving academic integrity in coursework submissions.

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PAEB2020 Conference Proceedings

Sub-Theme: Research Students and Integrity

PAEB_81

Raising students' awareness of academic ethics through LIFE project in Tallinn University

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Keywords: academic ethics, plagiarism, plagiarism in the arts, awareness of plagiarism

Last spring we conducted an interdisciplinary project called «Postmodern play or plagiarism» with 16 students from different disciplines (law, education, arts, political science, humanities) in Tallinn University within the framework of Learning in Interdisciplinary Focused Environment (LIFE). Of the 16 students more than a half were master students with work experience, and only few were first and second year bachelor students.

The aim of the project was to make students more aware of the discussions concerning academic ethics in the society, and to raise their awareness concerning their own academic activities. The major themes of the project were: where is the border between postmodern playfulness that seems to accept any free usage of other people's works and plagiarism, and what are the ethical issues students from different disciplines come across in their own chosen field of studies and work.

The first workshops consisted of discussing the mandatory readings about academic ethics (Kiil, Hennoste 2014), postmodern culture (Kraavi 2005, Loog 2010), after which students had to find cases from the media from different walks of life – the cases they found concerned cases from fashion (dress designs), music, graphic design (logos of campaigns and events). There was also a case of a politician's bachelor thesis written in Tallinn University 17 years ago, accused of plagiarism in the media, and students had to analyse the media coverage of the case, offer suggestions for resolving the case to the university ethics board and find arguments for and against the politician's actions concerning his thesis and his qualifications.

Then students devised their own mini-projects. One group devised a survey and sent these out to faculty members of all the institutes. The survey consisting of 29 questions targeted awareness of plagiarism in teaching and student supervision, as well as that of responsibility (who is responsible for the final check up of the work in terms of academic correctness, is anyone using plagiarism-discovering software). The number of respondents was 89, and though a vast majority of faculty members checks correct referencing, more than half felt that the number of discovered plagiarism cases was much smaller than the real number of plagiarised works.

Another group made oral one-to-one interviews with co-students about their awareness of plagiarism – asking about what plagiarism means for them, would they practice it, and if so,

what could be the reasons for it.

The third group devised a table with different types of plagiarism (cloning, copy-paste, find-replace, remix, 404 Error, recycle, re-tweet – based on Turnitin 2016) with concrete Estonian examples and suggestions how to avoid these types.

The fourth group made interviews (both oral and written) in the institutes with study co-ordinators and curators of programmes about the discovered cases of plagiarism in MA thesis, how the cases were resolved, and about the general attitudes concerning academic ethics and plagiarism.

During the project the general meetings for discussions took place every second week, and students presented their homework, and later their mini-project. The final results of the whole project for the students could be summarized as follows. There are many grey (unregulated areas) in academic ethics, and not all plagiarism cases result from corrupted mindsets. There is also, in the setting of university studies, issues about responsibility: since many plagiarism cases result from ignorance or slovenliness (referencing errors) and not from vexatious intensions, who should be responsible for unearthing them – the supervisor, the reviewer, the examining committee? Who is the person who should use the plagiarism discovering software – the student, the supervisor, the programme co-ordinator or curator?

The closing conclusion from the students was: plagiarism and academic ethics are not always clear-cut, and therefore it is necessary to raise the awareness of these issues at all levels. The students also mentioned that during the project their own awareness level raised, and the theme that initially seemed so simple became much more complicated and sensitive.

In the anonymous feedback to the project (10 out of 16 students involved with the project responded) the students' overall satisfaction with the project, their own work in it, and the consciousness raise was evalued "good", "very good" or "excellent".

The results of the project were publicly presented in the university LIFE projects' sessions, and via us, the supervisors, also to the university plagiarism working group.

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PAEB_86

Real-life ethical dilemmas: A case study approach to engage the medical and biomedical students towards bio/medical ethics

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Keywords: Bioethics, Medical ethics, case study approach, education, medical research

Ethics and ethical behaviour form important part in clinical science and biomedical research. Whilst patient safety, confidentiality and privacy take precedence in clinical medicine; ethically warranted study design, methodologies and data handling is vital for biomedical research. In fact, ethics in medical research deals with the conflicts of interest across various levels. Many treaties and declarations are in place to enforce ethical behaviours, especially in medical research (Gurayaa et al, 2014). As clinicians and researchers have the obligation to follow the ethical principles in their practice, it is imperative to educate young medical students on different dimensions of ethics in medical practice, such as research ethics, and the seriousness of misconducts. It is also essential to teach young scientists about good laboratory and scholarly practice in research (Masic, 2012). Also, more young doctors are getting involved in basic research and scholarly activities outside their usual territory of "clinical/patient based medicine" involving in vitro/animal research, and data handling. Likewise, several basic scientists are carrying out in vivo medical research involving patients.

At the beginning of this decade, the World Medical Association's (WMA, 2015) including ethical education as an obligatory curriculum within medical education. Whilst there is a greater emphasis of incorporating ethical education to medical students, it is not clear whether the research scientists are being taught about ethics, ethical behaviour and the consequences on intentional or un-intentional misconducts. On other hand, with the advent of genetic engineering, stem cell therapy, and genomic manipulations, the medical profession itself is facing new ethical challenges. Therefore, teaching bioethics to students with multi-disciplinary focus is imperative. Especially the fact that, the ethical decisions are subject to the situation, local legislations, and may be incorrectly influenced by moral justifications (Safuan et al, 2017). Young scientist/doctors are expected to critically analyse the situation with proper reasoning according to each ethical problems/situations. They need to develop critical thinking based on the information provided, as they become accountable for their own decisions.

Therefore, bioethics should be comprehensively taught, with the aim to help graduate/undergraduate students to practice by applying underlying principles. Many medical schools and other institutions use traditional lecture based delivery on ethical principles. Whilst it is important for young clinicians/scientists to learn the basic ethical principles, these lecture based delivery is often seen as *"boring"* and "dry", which is not always linked to day-to-

day practice. Also, the teaching curriculum in many universities are fully *"saturated"* with course specific contents which often makes it difficult to incorporate ethical education into their delivery. Hence some institution run extra sessions to deliver bio/medical ethics (Weatherall, 1995). In fact, it has never been clear how to deliver sessions on ethics and ethical conduct. Therefore, more innovative types of learning strategies are being employed to deliver these sessions. One such method, a "case study based delivery" was employed by the author in his institution. In this method, students were presented with a variety of case studies highlighting the issues in biotechnology, clinical medicine, food technology, biomedical science etc. Students were then grouped into two panels to discuss/debate (for and against) each scenarios. Finally the underlying principles were discussed in a plenary session. Although this approach was found to be time consuming (3 hour sessions as opposed to one hour lecture slots), it has generated full attention and engagement amongst the students.

This workshop would highlight the importance of this type of activity to enhance student understanding of the importance of ethics in biomedicine. The session is suited for students/ graduates undertaking medical and/or biomedical career options. Similar workshops have been conducted in previous conferences in Europe. Author wishes to take this conference as an opportunity to deliver this session to medical and biomedical students in UAE.

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PAEB_90

Countering the rise of disreputable publishing - Integrity in academic publishing and dissemination

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Keywords: Academic publishing; disreputable journals; predatory publishing; peer review; pseudo-science; journal indexing.

Introduction

A vibrant, thriving industry of disreputable or predatory journals, publishers and conference organisers has emerged on a global scale on the back of the movement for open access publishing (de Jager et al., 2016; Johnson et al., 2018). The term "predatory publisher" was coined by Jeffry Beall, a librarian at the University of Colorado Denver, USA: In his blog "Scholarly Open Access", he listed "Potential, or Probable Predatory Scholarly Open-Access Publishers". The websites and submission process of such journals are similar to any other modern journals; some have even managed to secure listings in reputable journal indexes (Savina & Sterligov 2016). This, together with appealing journal names, fake impact factor details, and invitations for journal article submission and conference attendance through emails, makes it difficult for a relatively new researcher to distinguish reputable from predatory journals (Shaghaei et al., 2018). The continuing success of these enterprises is indicative of the growing market for the services provided by this industry.

Technological advances and limited funds for libraries contributed to the changes with publication dimensions and towards the end of the 20th century, "open-access" publication emerged. Despite the initial aim of enabling free access to academic publications, open-access publication system also has been acting as a huge platform for predatory publishers to maintain their business. According to Patwardhan (2019), it is estimated that each year about 400,000 articles are published by approximately 8,000 predatory journals.

One reaction to this situation is *caveat emptor*: the buyer must take responsibility for the risk, but the reality is much more complex (Cobey et al., 2018). Predatory journals use "the author-pays model just for their own profit" (Beall, 2017, p. 274). Predatory publishers and journals can deceive unwitting authors into parting with money, either from hard-earned research funding or from their own pocket, by adopting names and branding that are very similar to genuine high quality journals; that is why Matumba et al. (2019, p. 84) call predatory publishing as "deceptive publishing". They typically make false promises about peer review and make claims of listings in high impact-factor indexes, some of which are fake or inventions of the predatory industry itself (Wouters et al., 2019).

Some authors deliberately make use of these dissemination channels, to satisfy perverse targets and incentives set by the national government or their employer, including the need for evidence of publication record for continued employment, promotion, peer competitions for enhanced reputation or because cash bonuses are available for academic publications (Glendinning et al., 2019, 35-38, 67). On the other hand, many young, talented but naïve researchers are attracted towards these journals due to (a) the desire to disseminate their research and enhance their reputation, (b) tired the fact that some of these journals are listed in the reputable indexes and (c) the inability to publish in reputable journals (caused by poor writing skills and/or lack of research rigour) (Demir, 2018; Kurt, 2018).

Besides genuine predatory journals, the pressure to publish academic work in an increasingly competitive world has also led to the rise in publishers that adopt questionable editorial and peer-review practices, which lay at the edge of blatant misconduct and possibly rather constitute questionable publishing practices. Due to its novelty, the issue is still underappreciated and under-investigated. There are many reasons to worry about this emerging "sloppy publishing" industry.

It is certainly easier and quicker for an author to get a paper accepted by a journal or conference that does not discriminate on subject content or quality, compared to the process and timescale to have a paper accepted for publication in a reputable journal. For starters, there is no need to wait for peer reviewers to report back and therefore there is no need for revisions and rechecking. However, after considering the impact of these journals on scientific research, academic standards and individual careers, it becomes clear that action needs to be taken to curtail this undesirable industry (Lutay, 2019).

Some predatory journals and conference organisers use another trick to enhance their reputations, by hijacking the profiles of eminent researchers claiming these unwitting people are members of their editorial boards or on their register of reviewers. These academics are often oblivious to the fact that their names, affiliations and track records appear on the web sites of these companies. Some other predatory publishers even go one step further and hijack a complete journal by publishing the identical name of a reputable journal at a different webpage.

Given the vast scale of the predatory publishing industry, it is essential that researchers have the skills to discriminate reputable publishers from predatory ones. Developing such skills requires familiarity with how these companies operate and promote their services. It is also possible to make use of "black lists" (a list of potential, possible, or probable predatory publishers) and "white lists" (list of what is considered "legitimate and ethical" (Hunziker, 2017, p. 114)). Beall's List is the most well-known black list, but he no longer maintains this list. White lists are maintained by the Directory of Open Access Journals (DOAJ), the Open Access Scholarly Publishers Association (OASPA), and the Committee on Publication Ethics (COPE) (Matumba et al., 2019).

Objectives

Members of the working group Integrity in Academic Publishing and Dissemination (IN_A_DIP), established by the European Network for Academic Integrity (ENAI), are running this workshop. The aims and objectives of IN_A_DIP are to

- Identify, define and characterise questionable editorial, publishing and dissemination practices;
- Promote institutional academic integrity by providing checklists to identify disreputable publishers and conferences;
- Disseminate good practice;
- Highlight the threats from disreputable publishers and conferences;
- Provide support to scholars for developing knowledge and skills in distinguishing reputable from disreputable publications / journals / conferences;
- Conduct research about this phenomenon;
- Network and collaborate with institutions, working groups, other people interested in this topic.

The workshop

The workshop will provide a forum for the presenters to work with participants to help answer questions, such as: How can we know whether or not a publisher / journal / conference is reputable? Why do people use such services? What harm do these companies do? How can we distinguish publishers that are just getting established from predatory publishing companies?

The workshop will begin by presenting previous research and early findings from the working group, including evidence from literature and research focusing on this problem (including: Bagues et al 2017; Bonhannon 2013; B). Participants will then be asked to contribute their own experiences and ideas to the working group's investigations.

The workshop will be of interest to anyone who cares about the publishing process, the quality of scientific research and the well-being of researchers throughout the world.

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PAEB_101

Attitudes towards cheating behaviour during assessing students' performance: students' and teachers' perspective(s)

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Keywords: academic misconduct; causes of ethical misconduct; consequences of ethical misconduct; institutional responsibility; personal responsibility, taxonomies of cheating behavior

Montenegro is the first country in the Western Balkans that adopted The Law on Academic Integrity, in March of 2019. The Law was created within the Project *Strengthen Academic Integrity and Combat Corruption in Higher Education*, co-funded by the Council of Europe and European Commission (2017–2019). The whole project was aimed at understanding questions of ethics in higher education and raising awareness about academic integrity (AI). There were a lot of different activities within this project in Montenegrin higher education community since 2017, and that means that the questions about AI are put in the center of academic discussions, both among academia members (students, teachers, researchers) and wider society members. While we may assume that there are no more problems in the field of AI in Montenegro than in some other countries, (according to, e.g. public scandals or university's procedures that are dealing with academic misconduct), the fact that the questions of AI became a part of a public debate is by itself very demanding. Namely, the whole society has very clear demand for HEIs – it's necessary to provide high quality diplomas, diplomas that are absolutely clear of any type of academic misconduct (Perović & Vučković, 2019). It is widely recognized that "When students plagiarize or cheat, they compromise their personal integrity and the institution's reputation" (Engler et al., 2008, p. 99).

The greatest amount of the debate in Montenegro is about plagiarism and about software checking of plagiarism, but the questions on AI are much wider and deeper and AI consists of the whole set of academic values, including intrinsic motivation (and self-regulation) or an attitude towards active learning (den Ouden & van Wijk, 2011), realistic picture about own and others' ethical behavior (Engler et al., 2008), personal awareness (Bonn & Pinxten, 2019) and AI depends on institutional and societal demands and norms (Engler et al., 2008; Bonn & Pinxten, 2019). There are many causes of unethical behavior (Jones, 2011; Lothringer, 2008). Some of them are recognized as academic pressure and competition (Bonn & Pinxten, 2019), the others are connected with societal orientations towards individualism or collectivism (Brodowsky et al., 2019). The highest rating in academic misconduct is probably caused by internet and/or modern technology (Aaron & Roche, 2013; Jones, 2011; Lehman & DuFrene, 2011). It is clear that "Academic dishonesty doesn't start in higher education, but most faculty and many students feel something needs to be done to

put on the brakes" (Aaron & Roche, 2013, p. 162).

Today, there is a large amount of research papers dealing with AI field. Bonn and Pinxten (2019) found that in the period 2005-2015 in the largest databases there were 986 articles about this topic, but only 342 reported empirical data. Some of the articles are oriented towards academic misconduct in teaching (assessing students' performance) while the others are considering research misconduct (Bonn & Pinxten, 2019). It is reported that research misconduct comes in many forms (De Vries et al., 2006), and the same thing could be said about cheating in teaching/learning and assessing (Brodowsky et al., 2019; Jones, 2011).

Research design, aims and objectives

Our aim in this study was to determine students' and teachers' attitudes towards AI issues in assessing students' performance. We aimed to describe how our respondents:

- Recognize ethical misconduct (EM) in several situations given through stories,
- Understand the roles of each subject involved,
- Predict consequences of the EM given in the story and how they understand its' possible causes,
- Create individual answers to EM or resolve problem situation.

Methodology

Our research design was performed on three basis:

1. Considering that we are researching ethical reasoning, we decided to use narrative method (storytelling, fictive case studies). That method was created by Lawrence Kohlberg (1984). In the case of our research, each story is very close to respondents' experience.
2. When treating stories and their usage as a research material, we started with an assumption of cognitive literary criticism that we react to the stories and fictional situations as they were real, thanks to mirror neurons (Nikolajeva, 2014).
3. For creating stories we used taxonomies of cheating behaviors developed by Lothringer (2008).

We used mixed methodology (qualitative and quantitative). Each question that was given to the respondents was open-ended, but it also was possible to code, categorize and thematize the answers (Vilig, 2016) and to include quantitative data analysis.

Study design had roadmap as follows:

1. There are many different types of academic dishonesty in assessing students' performance, so we decided to choose 8 of them from three taxonomies arranged by Lothringer (2008, pp. 148–152). These taxonomies consider three domains of cheating: exams, writing assignments and other assignments and actions, and they consist of total

66 possibilities of cheating (Lothringer, 2008). We choose 8 of them (random choice) and created 8 stories. These stories are moral reasoning situations.

2. Considering possible "guilty" person in each story, we decided to have three "guilty" scopes of action: a. *guilty* student(s), b. *guilty* teacher(s), c. *guilty* some other person(s) (other students, persons outside academia etc.). With these three *dramatis personae* we could have 8 different combinations (2^3,3 is a number of actors). It is possible to have 8 combinations as we showed in Table 1.

Table 1 – The actors' roles in ethical stories

Scope of action	a. Student	b. Teacher	c. Other
	EB	EB	EB
	EB	EB	NEB
	EB	NEB	EB
	EB	NEB	NEB
	NEB	EB	EB
	NEB	EB	NEB
	NEB	NEB	EB
	NEB	NEB	NEB

EB – ethical behavior; NEB – non-ethical behavior

Each story is created according to one horizontal line and one combination, so we have one situation that is in line with ethical principles by all actors, and also the latest story shows an example where no one of the actors didn't behave ethically. Considering this, our design gets a better connection with reality and also that was important for our respondents to think better about moral given in the particular story.

3. We set up several questions about each story: Is there any EM? Who (if any made EM? Why do you think so? Which are the possible consequences of this misconduct? What are the possible causes of this behavior? What would you recommend to be done about this case?

4. We gave to our respondents (120 students and 60 teachers) stories and questions in the written form. They answered in the same way. Important limitation of this methodology design was time needed for individual responses (it varied from one hour to one hour and 50 minutes), but our respondents reported that they were highly interested and motivated to understand stories and to write down their answers and ideas.

Results and discussion

Our results show a very good understanding of EM given in the stories. Each EM was clearly recognized by more than 85% of the respondents. Several of them – being incorporated in complex situation in which more than one person was cheating in some way – were not

recognized. But, in this case, it is possible to say that somewhat complex research design with 8 stories and almost 50 questions was too demanding for concentration and reasoning.

Both respondents' groups (students and teachers) are likely to be objective in their understanding of EM. We didn't find statistically significant differences between them when considering identification of EM and *guilty* person in a given situation.

Within the third research objective (predicting consequences and understanding possible causes) we found some differences which we could describe as colored by personal role. Namely, when the students are describing consequences of EM that were made by student actors within the story, they were slightly permissive while for teacher actors they tended to be more offensive. The teachers respondents were more offensive towards both situations. When considering the causes, students tend to be more diverse in their ideas, while teachers group was more homogenous.

Our respondents individual answers to EM were also diverse, but we could see several themes in them: ethical behavior needs to be a didactic topic (students should learn about academic writing), previous students' knowledge is of the greatest importance, un-developed learning strategies are an important part of ethical behavior. We found one common idea between our research sample – more than 90% of our respondents blame university's roles and procedures for EM.

Conclusions

With this research we found out some important ideas of our respondents:

1. They all were willing to participate in this research. We understand it as a great starting point to work in the field of AI. They also see the importance of honesty at the academia and they are able to recognize different EM situations given in the stories.
2. Our participants mentioned several important ideas on how to deal with EM while assessing students' performance. They told us that learning about academic writing and about learning strategies sound to be a part of regular teaching/learning.
3. While partially accepting individual responsibility for EM, they are unique in an attitude that there is a large amount of institutional responsibility. Namely, in their opinion, the institution should have clear and precise roles and procedures dealing with different issues in the field of AI.

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PAEB_126

Plagiarism and family morals

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Keywords: academic integrity, morals, plagiarism

The era of the internet and globalization has certainly reduced the distances between people, has contributed to cultural enrichment through openness to other countries and other standards of life and has fostered creativity through the exchange of ideas and the sharing of information. However, this also led to the creation of a Trojan horse called "Plagiarism".

Indeed, several authors and academics around the world have diagnosed this scourge, which particularly strikes the student population. The practice of plagiarism has spread and increasingly threatens the moral foundations of future generations. The trivialization of the theft of ideas in order to achieve one own goal seems in large part to describe a weakened Superego heir of a failing educational practice.
In this article, we propose to question the morality and the codes of family structure, which constitute one of the important factors of plagiarism behavior in the student. This research study will consider the following research questions:

What weight does the family, and more particularly the parents, have in the construction of the student's moral values? What are the models of behavior offered by parents during this critical period of adolescence? What consequences does this have on the honesty and academic integrity of their children?

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Addressing contract cheating and international practises

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Keywords: contract cheating, practices of western countries, Western Balkan countries

The contract cheating is a problem that affects the society of Western Balkan countries and western countries. Higher education institutions of these countries are facing such phenomena and are making efforts to address it.

Of course, the western countries like for example Germany and England, are more advanced in this regard by taking many appropriate technical, administrative and legal measures to address such problem. Different from these countries, the Western Balkan countries are more at the debate level of addressing such problem.

Therefore, the aim of this article is to present the current situation with regard to the contract cheating in Kosovo as one of the Western Balkan Countries and compare it with western countries in order to identify the best international practices in fighting contract cheating, including better legal solutions. For the purpose of proposing a more successful approach in fighting contract cheating, the following questions will be addressed throughout this research : Is there any legal measure in place by higher education institutions of Kosovo that sanction the contract cheating? Would the new approach based on the practices of western countries decrease these illegal practices? Can the new approach be implementable in Kosovo considering the local circumstances? All these questions will be addressed by analyzing legal documents of the countries under research, reports and previous scientific articles on fighting contract cheating through international practices. In addition, an anonymous survey with students on self-reporting of contract cheating and awareness about the negative effect of contract cheating will be conducted. And, several research papers will be analyzed in order to the access the quality of the work and to detect contract cheating.

Based on the preliminary research, Kosovo higher education institutions have sanctioned plagiarism in general, and right of authorship; however the fight against contract cheating is very superficially regulated on their legal documents (Shala et al., 2019). Considering the practices of other western countries (Newton 2018, Medway et al., 2018, Bretag et al., 2019)., Kosovo higher education institutions lack detailed legal provisions in defining the term contract cheating, prohibiting these illegal practices as well as specific administrative and technical mechanisms that prevent and detect contract cheating (Shala et al., 2019). While in the United Kingdom, students reported themselves contract cheating through anonymous surveys (Medway et al., 2018), self-reporting among Kosovo's students is very limited or unexciting. However, Kosovo media have reported scandals suggest that university students are outsourcing their graduation and post-graduation theses to third

parties (Gazeta Blic 2018). Since 2002, Kosovo higher education institutions asked by Ministry of Education to comply with Bologna process, have started to implement new assessment methods for evaluation of students' work such are written exams, research papers, ect. But these institutions do not have yet the basic infrastructure to support this new way of assessments so as the detect plagiarism of the written work, institutional storage of student's written work neither national storage of thesis (Shala et al. 2018).

Based on the recommendations of the other authors for the western universities, Kosovo higher education institutions should use more "old" methods that use"face to face assessment methods (Bretag 2018). In addition, the Kosovo higher education institutions should amend the legal provisions to define the term "contract cheating" in higher education sector and make this behavior illegal. The digital tool to detect plagiarism is also needed to be in place as soon as possible. The campaign on awareness rising among Kosovar students about the meaning of "contract cheating as well as negative effect to such illegal act for their own futures is very important to be conducted continuously.

Conclusions

The results of this research proves that there is no proper legal base in place in Kosovo higher education institutions that sanction firstly the contract cheating. Therefore, Kosovo higher education institutions have to review the legal, guiding and policy documents on ethics specifically in order to define more concretely the meaning of contract cheating and measures on prohibiting it in order to include international best practices. The change of assessment methods as well as activities of awareness rising among students about the meaning of such illegal act is more than necessary. In this way, the mechanism for preventing and punishing the contract cheating acts will be more efficient.

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Causes and Effects of Plagiarism among the Student Community in Universities and Colleges in UAE-An Overview

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Keywords: Plagiarism, ethics, copyright, publish, honesty

This paper throws light on the repercussions on plagiarizing literature of one author and using it by another author for publication purposes. It has been found that many authors use the data of one or more authors and publish it as their own without citing the name or authorship of data which can lead to misconduct and academic dishonesty. The researcher has conducted a descriptive study across universities and colleges in UAE to unearth the reasons and effects of plagiarism and why students fabricate and falsify data in doing their assignments and project works. A stratified random sampling procedure has been employed in the study. Interview schedules have been used by enumerators as their research instrument to collect data. The sample frame of the study is the students and researchers in universities and colleges in UAE. The researcher has collected data from a sample size of 200 students and researchers studying in universities and colleges in UAE. The data were analyzed using appropriate statistical tools and has come to meaningful conclusions. The term plagiarism takes it‘s root from the Latin word *plagium*, which means ‘to kidnap a person’, i. e. ‘theft’, which is taking material authored by others and presenting as one’s own. The researcher has concluded saying that the illegal appropriation of other people’s spiritual property is attributed to many reasons like ‘easy access to someone else’s authorized sources of literature’, ‘the pressure to publish a paper in a reputed journal’, and ‘the fear of committing mistakes in writing an article’ which will lead to fabrication and falsification of data. The recommendations of the study are that there should be ‘stringent stipulations’ to authors to prevent misconduct and academic dishonesty while writing or publishing an article. They should cite references and acknowledge the source from which they have taken the ideas and should mention the complete bibliographic details. If a sentence copied from any other source has more than 4 consecutive words, they should take the permission from the author or writer or publisher. Special permission should be obtained for reproducing any copyrighted material. Some ethical considerations also has to be taken like – researchers have to follow ethical codes of Good Scientific Practice based on the principles of integrity and honesty and become responsible for what they publish.

PAEB2020 Conference Proceedings

Post-Conference Workshops

Ethical dilemmas: A case study approach to engage the medical and biomedical students and early career researchers

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Many young doctors are getting involved in basic research and scholarly activities outside their usual territory of "clinical/patient-based medicine" involving in vitro/animal research, and data handling. Likewise, several basic scientists are carrying out in vivo medical research involving patients. Whilst there is a greater emphasis of incorporating ethical education to medical students, it is not clear whether the research scientists are being taught about ethics, ethical behaviour and the consequences on intentional or unintentional misconducts. Many medical schools and other institutions use traditional lecture-based delivery on ethical principles. Which are often seen as "boring" and not always linked to day-to-day practice. Teaching curriculum in many universities are fully "saturated" with course specific contents which often makes it difficult to incorporate ethical education into their delivery. Innovative types of learning strategies such as "case study-based delivery" are employed.

In this workshop, medical students and early career scientists were presented with a variety of case studies highlighting the issues in biotechnology, clinical medicine, food technology, stem cell therapy, biomedical science etc. Students were grouped to discuss/debate each scenario. This was followed by a plenary session, where each group presented their arguments for (or against) the scenarios they have analysed. Finally, the underlying principles linked to each scenario were discussed. Although this approach is time consuming, it usually generates full attention and engagement amongst the students.

Similar sessions have successfully been delivered in institutions and conferences within Europe. The session is suited for students/graduates undertaking medical and/or biomedical career options.

Teacher Training in Academic Integrity: Curriculum Strategies

Sonja Bjelobaba, Uppsala University, Sweden

More often than not, academic integrity as a discipline is defined by stating what it is not. Instead of focussing on what we want our students to do, we tell them that they should not cheat, plagiarise, collude, falsify or fabricate data, or engage in contract cheating. When defined in this way, academic integrity focusses on corrections of students' behaviour, detection, and punishment, still generally managing to avoid explaining to students what we want them to do instead.

Academic integrity can, and should be, defined in other ways, as a set of positive values or an agreement with ethical and professional principles, standards and practices that involve the whole institution.

Such a change in the definition inevitably changes our teaching of academic integrity: instead of correcting students' behaviour, different methods of the preventive and pedagogical promotion of academic integrity can be explored. In this workshop, I discuss how academic integrity can be integrated in the curriculum and give examples of different preventive pedagogical practices.

PAEB2020 Conference Proceedings

Papers presented during the conference

Paper Presentations

Use of Digital Content in Ensuring Integrity for Teaching and Learning English at the Secondary Level of Education: Perspective of Bangladesh

Will Law and Regulation change the behaviours of Essay Mills?

Academic Integrity in the Islam World: The Impact of culture

Towards understanding Academic Integrity Policy amongst Hungarian Higher Education Institutions

A discussion of potential institutional responses to the issue of blackmail and disclosure in contract cheating.

Added Value of Centralised Plagiarism Detection System on a National Level

Presentation of web portal - Support for victims of academic misconduct

Causes and Effects of Plagiarism among the Student Community in Universities and Colleges in UAE-An Overview

Stylometric Comparison of Professionally Ghost-Written and Student-Written Assignments

Promoting Academic Integrity: A Tale of Two Case Studies

BAIT AND SWITCH: THE SEARCH ENGINE OPTIMIZATION CONTENT PRACTICES OF CONTRACT CHEATING WEBSITES

Attitude towards plagiarism: The case of an Australian university in the United Arab Emirates

The efficacy of using a mobile application to enhance students understanding of academic integrity

Organisation of dissertation mills in Russia

USING ACADEMIC INTEGRITY TO TEACH BUSINESS ETHICS

Implications for academic integrity of secondary school students: Collaborative strategies in dealing with individual written assignments and National Tests in Sweden

Plagiarism from a Digital Forensics Perspective

Attitudes towards cheating behaviour during assessing students' performance: students' and teachers' perspective(s)

Project on Academic Integrity in Armenia, Azerbaijan, Georgia, Kazakhstan and Turkey

Contract cheating values in school assessments – what values are we really teaching out young students?

Triage for the wounded – helping students who have faltered

Contribution of librarians in the prevention of plagiarism: the case of Lithuania

Perceptions regarding academic integrity among entry-level health-professions students in a university in UAE

Raising students awareness of academic ethics through LIFE project in Tallinn University

ACADEMIC INTEGRITY INITIATIVE IN LATVIA

Guidelines to Recognise Fake Scientific Events

Do individual factors and academic discipline affect student cheating behavior-An empirical study in the Middle East

Addressing the contract cheating and international practices

EQUITY IN ADMISSION: COMPARATIVE STUDY OF SECONDARY DATA IN HIGH SCHOOL CURRICULUM VALUATION.

What drives students\› behaviour towards plagiarism in Montenegro: The moderating role of text matching software

The Plagiarism Challenge

JOURNEY FROM CLASSROOM TO WORKPLACE - ONE STUDENT'S STORY

Poster Presentations

Testing of Support Tools for Plagiarism Detection

Academic Integrity Strategies: Positive, Prevention and Punitive

Web Analytics of the ENAI Pages

Workshops

Removing Plagiarism - Workshop Extended Abstract

Countering the rise of disreputable publishing: Integrity in academic publishing and dissemination

Academic Integrity Teacher Training:

Workshop on Academic Integrity Self-evaluation tools

Real-lie ethical dilemmas: A case study approach to engage the medical and biomedical students towards bio/medical ethics

Varying institutional procedures for dealing with student academic misconduct: A short comparative analysis

Gamifying Academic Integrity - the first steps

Visual Plagiarism: How to Prevent, Educate and Detect