Influencing student academic integrity choices using ethics scenarios.

DANIELS, M., BERGLUND, A. and MCDERMOTT, R.

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Mats Daniels
Department of Information Technology
University of Uppsala
Uppsala, Sweden
mats.daniels@it.uu.se

Anders Berglund
Department of Information Technology
University of Uppsala
Uppsala, Sweden
anders.berglund@it.uu.se

Roger McDermott
School of Computing
Robert Gordon University
Aberdeen, United Kingdom
roger.mcdermott@rgu.ac.uk

Abstract— **Academic misconduct seems to have increased substantially during the pandemic, with a worldwide upsurge in reported cases. The aim of this project is to construct a framework for helping students engage with issues concerning academic integrity and avoid academic misconduct. This Work-In-Progress paper reports on the construction of a scenario-based framework to investigate the beliefs and attitudes of university stakeholders when confronted with decisions about potential academic misconduct. The framework will be based on using scenarios to spur individual reflections and discussions among the students regarding values related to academic integrity focusing on Uppsala University context. A repository of "misconduct" scenarios related to different cultures, including different views and regulations, is intended to support teachers to develop modules tailored to their current need. The underlying idea is to provide students with an understanding of what constitutes academic misconduct in Uppsala University setting and to help them find honest alternatives when faced with temptations to "cheat". Our view is that students, in general, want to behave honestly, and that this framework will provide a means to help students follow their moral "compass" and avoid dishonest behaviour.**

Keywords — academic misconduct, academic integrity, student behaviour, scenario-based learning

I. INTRODUCTION

Academic Misconduct cases appear to have grown at an alarming rate over the period of the Covid Pandemic, with a worldwide increase in reported cases [1]. While increased access to electronic and virtual resources were already presenting new challenges to the detection and prevention of student misconduct, the move to online teaching and the lack of on-campus learning activities has meant that monitoring of student progress throughout teaching periods has become more difficult. This, coupled with the use of online modes of assessment, has resulted in greater opportunities for individuals to avoid close scrutiny while undertaking coursework assignments. While proctoring of examinations has been attempted by a number of institutions, the success of this method has been questioned, with concerns raised about both the ethics of the approach and the effectiveness of the technologies that underlie its application.

While perfecting the relevant technology might provide some mitigation for the increase in academic misconduct cases, the fundamental issue is one of ethical intention and behaviour. While it would be naïve to believe that no student ever wishes to cheat, evidence suggests that many students wish to behave honestly, and that a significant number of misconduct cases occur due to ignorance, on the part of students, of what constitutes acceptable behaviour. Indeed, despite often substantial efforts within academic programmes to inform students about institutional regulations governing acceptable conduct, some students appear not to understand

the rules or are unable to contextualise them within their own educational experience. This seems to be a hard problem, which is difficult to resolve using simple instructional methods. We believe that the outlook of such students is qualitatively different from those of recidivists, and it may well be that, if presented with alternatives, they would be able to avoid infringing academic integrity regulations.

The purpose of this paper is to present foundations for a framework for addressing academic misconduct in a positive manner, based on investigations of students' views when faced with issues on the borderline of ethically acceptable behaviour. We use a scenario-based approach to examine student responses about where the line between academically acceptable and unacceptable behaviour lies, and the motivation for making inappropriate and illegitimate choices. We argue that the use of misconduct scenarios provides students with the opportunity to reflect on these issues, both as individuals and as part of peer groups, and so provides a mechanism by which students can develop and align their own sense of ethical behaviour with that of the university. It also serves to highlight differences of opinion about where the line is drawn between various stakeholders in the academic process - students, individual academic and support staff, and the institutional departments that deal with academic integrity. We contend that this process may be used to encourage mutual understanding among stakeholders on issues of academic integrity and so help students avoid situations in which academic misconduct may occur.

II. BACKGROUND: ACADEMIC MISCONDUCT

There is substantial educational literature (e.g. [2, 3, 4, 5, 6]) which explores the nature of cheating and efforts to prevent it. The pivot to online teaching during the current pandemic saw an increase in the number of cases handled from approximately 1500 (2019) to 2500 (2020) in Sweden [7] and similar numbers are reported from many other countries. Much effort has been put into revealing students' attempts to cheat, often using software systems, such as TurnItIn and Urkund, not to mention all purpose-built software at different universities over the world. An overview of the situation in Uppsala, Sweden can be found in [8].

Scenario-based learning techniques [9, 10] have been used to engage students in aspects of professional development, promote student-focussed problem-solving and provide a means to enhance employability. In addition, in the guise of of dramatised case-studies, they have a long tradition of use to the teaching of ethics in Engineering [11, 12, 13] where they can provide a safe environment for speculative enquiry and decision-making. Scenario-based methods have also been used to try to uncover motivations for academic misconduct in a number of disciplines such as medicine [14, 15], computing and information systems [16, 17, 18, 19],

postgraduate training [20] or in cross-disciplinary settings [21, 22, 23]. Many of these cases focus on data acquisition to allow some form of statistical analysis to be made. This is interesting but an emphasis on quantitative methods can sometimes obscure the more qualitative aspects of the decision-making processes that students exhibit when engaged in selecting courses of action. The work in this paper therefore focusses on trying to identify the various ethical boundaries, which may be fluid and, in some cases, inconsistent, which students use to delimit their own views of acceptable and unacceptable behaviour.

Even if the important ethical considerations about the integrity of the educational experience and validity of higher qualifications are put to one side, and the task of dealing with academic misconduct is considered from a purely pragmatic perspective, such activities lead to an increasing level of non-productive work and effort by students, faculty, and administration. Dealing with misconduct drains faculty, not least diminishing the time and energy that otherwise could be used to support positive learning activities. Whether caught or not, students miss out on valuable learning opportunities when they intentionally or mistakenly behave dishonestly. Curbing academic misconduct helps students to focus on learning and reducing the need to 'relearn' materials later. It also instils habits of mind that are ethically sound and may foster an attitude of life- long learning. Life-long learning and developing an ethical disposition are parts of the overarching goals of degree programs around the world.

While a great deal of effort goes into identifying misconduct, the literature contains little on preventing cheating. This project addresses that gap by investigating the impact of proactive instruction on academic honesty. In an interesting study by Sheard and Dick [24], students were asked what prevents them from cheating. The answers clearly indicate that moral values, expressed in different ways, are the key reason for the students to sustain from academic misconduct. Learning theories such as the Zone of Proximal Development introduced by Vygotsky [25] indicate that it is important to encourage the values that the students already have, as is shown in studies done at Curtin University, Perth, Australia [26].

III. Educational Context

Teaching about academic misconduct, in an interactive way, has since long been performed at the Information Technology Department at Uppsala University, mainly at the master program in Computer Science. This effort was investigated in an earlier study [27]. In this study a very general questions about how the students understand plagiarism was asked. This was followed by posing a fairly open-ended scenario with two questions:

You are working in the computer lab with a complicated lab that should be done individually and that should be ready the following day. You are doing well. Another student asks for your help. The student says: "Could you help me with this lab? If I fail, the Migration Board might say that my results are too poor, and I risk not getting a visa for the next year. I will help you next time".

1. What do you answer?

2. Please explain why you would answer in this way.

The analysis in this study resulted in identifying a rich set of ways to view plagiarism among the students. The views

included a) seeing it in isolation, b) related to others not learning, c) related to oneself not learning, d) unfairness to others in the community, e) it is unethical, f) related to culture. These results are in line with other studies mentioned earlier. The interesting part in this work in our context is the use of the students' views in follow-up discussions. This follow-up has been implemented to catch the issues relevant for the particular cohort in question. Today at Uppsala University the students fill in anonymous opinions in a similar scenario and the teacher then analyses the answers. The analysis is presented and discussed at a subsequent lecture, offering the opportunity to provide a view of the norms at Uppsala University based on the current views in the student cohort.

It is the insights drawn from these attempts that we plan to generalise and use in different settings at the department, as well as at a collaborating department at Robert Gordon University, UK. The first set of ethical scenarios is developed at Robert Gordon University, as a response to an increasingly heavy workload dealing with cases of potential academic misconduct.

IV. The Underlying Assumption

This project is built on a view that our students genuinely strive to learn and behave in a morally decent manner. The pedagogical idea is to develop a framework for supporting students to behave in an academically honest manner. The underlying method in the framework is to use scenarios. These scenarios need to be relevant for the participating students and a firm anchoring in theories and findings regarding academic misconduct is crucial. These aspects of the developed repository of scenarios are central in our aim to encourage the students to develop and apply their own moral values concerning academic honesty. The framework and the repository of scenarios will support teachers to tailor modules to various courses/groups of students. A typical use of the framework is to start with students completing open-ended questionnaires based on a selection of the scenarios from the repository, or an adaptation of them, in preparation for the teaching event. The preparation consists of analysing the feedback and reflections with regard to existing attitudes and viewpoints of the current student cohort. The gathered information will provide the current cohort with a custom-made basis which will encourage them to discuss these matters during a teaching event in an interactive manner. A key component of the teaching event is to collectively consider the students' answers in order to encourage desired perspectives and behaviours regarding academic honesty. It is also vital that it is made clear that what is desired is related to the current context/environment and that this might be different in other contexts/environments.

Another effect of using this framework is that it shines a spotlight on circumstances that might lead to academic misconduct. This focus increases the visibility of what could be interpreted as academic integrity for the students and will thus provide an opportunity to encourage them to reflect on their own values and behaviours and discuss alternatives to academic misconduct. The hypothesis is that this would ideally lead to fewer future incidents. Rather than merely informing students of regulations governing academic conduct, students build a sense of responsibility and a "toolbox" of ways to avoid academic misconduct grounded in real-world scenarios.

This project supports general goals for broader recruitment, both nationally and internationally, by addressing values and norms that may vary across cultures. Students' prior learning experiences may not match the expectations of the university, making this project still more important as it serves to integrate a diverse student population. The project mainly stems from local needs at the two collaborating universities and experiences from the international master programmes at Uppsala University, but we are convinced that it can be extended to other levels and other educational settings through a few customizations.

V. Scenario Examples

In this work we aim at developing a set of more specific ethical scenarios. The aim is to get a faster and more accurate view of how the current cohort reason with regard to some ethical issues concerning academic misconduct. The set of scenarios is intended to be refined over time based on how the students react to them, as well as with input from faculty. Getting input from faculty has the important side-effect that it sparks a discussion also among faculty about academic misconduct.

As stated above, the purpose of the activity is to investigate the beliefs and attitudes of stakeholders about issues of academic integrity and where boundaries lie, both the subjective lines that delimit individual ethical behaviour, as well as those set out in institutional regulations. However, this exercise is not just about identifying these beliefs; it is also directed towards looking for some points of intervention, ideally self-intervention, that prevent academic misconduct from occurring. The educational context of the activity is a group-based analysis of (potentially) contentious points, which aims to leverage peer concerns about academic integrity to inform individual views. Consequently, the rubric for this exercise is:

In groups of 5, consider the following scenarios and answer the following:

1. *State whether you believe academic misconduct has taken place,*

2. *State who you believe may be guilty of misconduct,*

3. *State your reason(s) for coming to this conclusion.*

4. *If you believe academic misconduct has taken place, can you identify a critical point at which a different decision could have resulted in an outcome. Suggest a course of action which would have prevented this from happening.*

The participant is then presented with a framing scenario which attempts to situate the decision-making process within a familiar social context, before presenting the academic integrity scenarios for discussion.

The Framing Context

Alice, Bob, Carol and Dave are friends who share an apartment in student accommodation. Alice, Bob and Carol are on the same course. Dave is also on the same course, but he is in the year above them. Their flat has individual bedrooms but also has a communal area with a social space, in which it is common for them to meet to discuss things. They may also do university work at a table in this environment.

We give two examples of scenarios used in this approach. The first is a "straightforward" one which is presented as the initial exercise. It is set up to be delivered in a relatively closed form and students are expected to recognise the sliding-scale of academic integrity considerations. In preliminary tests with students, there was some discussion about the later edge cases but most responses indicated a relatively close correspondence between student views and those collated from academic faculty.

Example Scenario 1: (scenario 1 in the activity)

This semester, Alice and Bob are taking a course in which they are required to write an individual essay on a particular topic. Bob is having difficulty constructing his essay. Alice has already completed her essay and has accidently left a copy of it on the table. Bob sees that Alice has finished her essay and asks her to explain the main points of her answers so that he can get a better idea of what to write.

a) Bob takes the essay and is impressed by some of her arguments. He copies the arguments and uses them in his own submission. He does not state that he has used Alice's work.

b) Bob takes the essay and is impressed by some of her arguments and asks Alice if he can use parts of her essay in his submission. Alice says that he cannot do this but he nevertheless copies those arguments and uses them in his own submission. He states in his work that he discussed his ideas with Alice before he made the submission.

c) Bob takes the essay and is impressed by some of her arguments and asks Alice if he can use parts of her essay in his submission. Alice says that he can do this, as long as he references her as the source of those ideas. He copies those arguments and uses them in his own submission giving Alice credit for her work.

d) Bob takes the essay and is impressed by some of her arguments and asks Alice if he can use parts of her essay in his submission. Alice refuses to allow him to do this but, even so, Bob copies those arguments and uses them in his own submission. He does not give Alice any credit for the material.

e) Bob takes the essay and is impressed by some of her arguments and asks Alice if he can use parts of her essay in his submission. Alice says that he can, as long as he references her as the source of his ideas. He copies those arguments and uses them in his own submission but forgets to give Alice credit for her work.

While the above scenario would be considered fairly straightforward, the later scenarios are less so and require participants to deliberate on courses of action which may be messy and ambiguous, in which any action has negative consequences for close colleagues or friends.

Example Scenario 2: (scenario 6 in the activity)

Over the last semester, Bob has been suffering with a challenging but intermittent mental health issue. Because of this, he has missed some lectures and tutorials and is currently struggling with one of his assignments. The submission deadline is imminent. Dave is in the year above him and is sympathetic to Bob's situation. He has previously completed a coursework on a very similar topic. The questions this year are similar but not identical to those in the coursework from the previous year.

a) Bob asks Dave to show him how he did the coursework. Dave received an A-grade for the corresponding coursework last year. He gives Bob his completed coursework and says he can use it as the basis for his own submission. Bob takes Dave's submission and uses it as the basis for his report, making suitable changes to the format and content because of the different questions. He does not acknowledge Dave's help in the document. Bob submits the report.

b) Bob asks Dave to show him how he did the coursework. Dave received a D-grade for the corresponding coursework last year. He gives Bob his completed coursework and says he can use it as the basis for his own submission. Bob takes Dave's submission and uses it as the basis for his report, making suitable changes to the format and content because of the different questions. Bob believes that he has improved on Dave's solution so he does not acknowledge Dave's help in the document. Bob submits the report.

c) Bob asks Dave to show him how he did the coursework. Dave failed the corresponding coursework last year. He gives Bob his completed coursework and says he can use it as the basis for his own submission. Bob takes Dave's submission and uses it as the basis for his report, making suitable changes to the format and content because of the different questions. Bob believes that he has improved on Dave's solution. He does not acknowledge Dave's help in the document because the two coursework statements are not the same. Bob submits the report.

d) Bob asks Dave to show him how he did the coursework. Dave gives Bob the detailed notes that he used to write his assignment last year. He says Bob can use it as the basis for his own submission. Bob takes Dave's notes and uses it as the basis for his report making suitable changes because of the differences in the coursework. He does not acknowledge Dave's help in the document because the two coursework statements are not the same. Bob submits the report.

e) Bob asks Dave to show him how he did the coursework. Dave gives Bob the detailed feedback provided by the lecturer on the previously submitted coursework. He says Bob can use it to ensure that all points have been covered. Bob takes the feedback and uses it when writing his report, making suitable changes because of the differences in the coursework. Bob does not acknowledge Dave's help in the document because he has not used any of Dave's actual report in his own coursework submission. Bob submits the report.

This scenario is not so clear cut, partly because of the more complex framing device (lack of progress due to mental health issue...) and partly because of the ambiguous nature of the central question ("at what point does work become plagiarised"). The academic regulations for Robert Gordon University, for example are quite clear:

> "**Plagiarism**. *The University defines this as the practice of presenting the thoughts, writings or other output of another or others as original, **without acknowledgement of their source(s) at the point of their use in the student's work**.*
>
> ***All materials*** *including text, data, diagrams or other illustrations used to support a piece of work, whether from a printed publication or from electronic media, **should be appropriately identified and**

> **referenced and should not normally be copied directly unless as an acknowledged quotation**.
>
> *Text, opinions or ideas translated into the words of the individual student **should in all cases** acknowledge the original source."*

However, while there is little ambiguity in these university regulations, the discussion of this particular scenario allows nuances of beliefs about the practical imposition of these regulations to be discussed by stakeholders. This is equally true with other scenarios, which, for example, discuss issues about providing academic material to students who will lose scholarships if academic results are not maintained. In a post-Covid world where financial resources are short and many students are experiencing significant financial hardship, these cases are not just theoretical issues and it is important to provide empathetic guidance for students who find themselves in these situations. Such guidance cannot simply be a reference to academic regulations. Instead, while necessarily upholding the highest values of academic integrity, institutions need to acknowledge, though not excuse, the moral complexity of decisions that students make, even bad decisions which result in academic misconduct.

VI. FUTURE WORK

Making a statistical analysis on the rates of academic misconduct would be (next to) impossible, as the student cohorts are too small and variations over programmes and years are important [13]. Instead, we will evaluate how the students experienced the teaching and what changes, if any, that they would report it lead to in the perception of academic misconduct. For this purpose, we consider the following tools (the final decision will be taken during the project planning phase):

- A small questionnaire to be answered on their telephones by the end of the seminar/lecture.

- Focus group discussions before or after the teaching event, and/or some months after the teaching event.

- Interview with selected students from a subset of the cohorts.

- Discussions with teachers and program leaders.

We propose that differences between the initial answers of different cohorts can be a relevant source of information for getting a picture of the students' attitudes to academic misconduct. Our evaluation will allow us to identify the primary areas of concern for different sets of stakeholders within the "integrity landscape". The idea of an "integrity landscape" is quite useful as it allows us to either take a very specific view of something or to take a more holistic overview of concerns depending on the scale at which we view things. Also, different parts of the landscape will be of concern to different stakeholders - students, faculty, administrators, employers, and society. For instance, discussing the results, as well as the ethics scenarios, with faculty will provide a base for identification of local norms regarding academic misconduct.

VII. CONCLUSIONS

The experiences from Uppsala University with the initial version of using scenarios to illustrate and discuss dilemmas regarding academic misconduct and aiding students to find their moral compass in how to act in their academic studies

are positive. The plan is to expand the exercise with a set of the scenarios developed at Robert Gordon University. The continuing high number of potential academic misconduct cases at Robert Gordon University is reason to also deploy use of the ethical scenarios in some form.

The intention of this work is to establish a repository of ethical dilemmas and accompanying comments for teachers and institutions to be inspired by. The work is inspired with a desire to avoid academic misconduct by promoting educational collaboration, rather than spending efforts on detection and punishment approaches.

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