9th European Conference on Ethics and Integrity in Academia

University of Derby, United Kingdom 12th to 14th July 2023

Book of Abstracts

European Network for Academic Integrity

Dear Delegates,

A very warm welcome to members, established friends and colleagues of the European Network for Academic Integrity (ENAI) as well as the new participants. For those new participants, congratulations on your choice of conference!

We thank you for your continued professional friendship, scientific endeavours, and support. We a have received a record number of abstracts from all different continents of the world. We are confident that you will enjoy the usual friendly, fun atmosphere of the conference and learn much over the coming week.

The Conference Organising Team

Abstract Editorial Committee

- **Irene Glendinning** (Coventry) and **Shiva Sivasubramaniam** (UoD)
- Vadivel Parthsarathy (UoD)
- Thomas Illingworth (UoD)

ENAI Advisory Committee

- Teddi Fishman
- Rita Santos
- Salim Razı
- Sonja Bjelobaba,
- Tomáš Foltýnek,
- Zeenath Khan

Acknowledgements

The conference organisers sincerely thank to all international experts who have reviewed the abstracts and provided constructive feedback to improve submissions to this conference without which we could not have organised this conference. We appreciate your concerted efforts to act as individual mentors for student presenters to effectively write their extended abstracts; helping us to achieve one of the original ENAI objectives of helping students to become active researchers with integrity.

Review Committee

Forward from ENAI President

Dear Conference Participants,

One of the tasks that are expected from the President of the Board of the European Network for Academic Integrity, is to write a welcome message to the book of abstracts. It may seem a tedious task, almost the same every year. However, this year is different. The main topic being discussed among the academic integrity community are recent advances in generative artificial intelligence and their implications on higher education. I could not resist the temptation to ask AI to write that foreword for me. Not because of laziness or unwillingness to write it by myself, but mostly to keep a historic record of the current capabilities of generative AI. I am looking forward to reading this foreword in 10 or 15 years. I guess I will be laughing at how primitive the AI was in 2023, but nobody knows. Maybe AI will be banned by that time. Maybe AI will take over human civilisation and punish people for disrespectful communication with chatbots. Seriously, I believe none of these scenarios. I believe that in 10 or 15 years, AI will be so common in our lives that nobody will be able to imagine living without it. Something like the internet today.

I used Chat GPT. I asked what information it needs to write the foreword for me. Then I provided information about the conference organisers and target audience, copy-pasted the content of the conference website and the list of ENAI working groups. I also asked it to specifically mention artificial intelligence as an important topic. And, last, but not least, I wanted to express my gratitude for being part of the most active and prestigious academic integrity community in the world. It took four iterations of prompts to add more details, but the result was pretty good. Here it is, with only minor edits, for the future record:

Dear Conference Participants and Readers,

It is with great pleasure and excitement that I introduce the Book of Abstracts for the European Conference on Ethics and Integrity in Academia 2023, jointly organized by the University of Derby and the European Network for Academic Integrity (ENAI). This compilation of abstracts showcases the forefront of research and ideas presented at the conference, focusing on the crucial topic of academic integrity.

I would like to extend my deepest appreciation to the European Network for Academic Integrity (ENAI), an organization that stands as a beacon of dedication and excellence in promoting ethical practices and integrity in academia. ENAI, like a supportive family, welcomes and supports its members, fostering a collaborative and nurturing environment. As the proud leader of this fellowship, I am truly honoured to be associated with such an outstanding community. In this rapidly evolving academic landscape, we face new challenges that demand our attention and concerted efforts. Recent advances in artificial intelligence present both opportunities and threats to academic integrity.

The integration of AI technologies brings about unprecedented convenience and efficiency, but it also raises concerns regarding the authenticity of academic work and the prevention of unethical practices. As we explore the abstracts in this book, we will encounter insightful research and discussions addressing these challenges and providing innovative solutions to safeguard academic integrity in the age of AI.

Within these pages, you will find the abstracts contributed by the esteemed keynote speakers and panellists who graciously shared their expertise with us. Their profound insights and experiences in the field of academic integrity enrich the content of this conference. I extend my heartfelt gratitude to Professor Serhiy Kvit, Professor Michael Draper, Dr. Mary Davis, and all the distinguished panellists for their invaluable contributions.

Equally deserving of recognition are the ENAI working groups, whose efforts have been instrumental in advancing academic integrity. These groups, encompassing diverse areas such as Academic Integrity Policies, Academic Writing Ethically, Ethical Publishing and Dissemination, and more, have collectively fostered a culture of integrity in academia. Their abstracts presented in this book reflect the tireless dedication and remarkable achievements of ENAI members, supporters, and all those who have contributed to these group activities. I would also like to express my gratitude to the University of Derby for their collaboration in organizing this conference. Their commitment to promoting ethical practices and integrity in academia has been instrumental in gathering researchers and practitioners from across the globe to engage in meaningful discussions and explore important topics within the field.

To the authors of the abstracts featured in this book, your unwavering dedication to advancing academic integrity and upholding ethical conduct in research and education is truly commendable. Your contributions form the very essence of this compilation, providing valuable insights and knowledge to the academic community. I invite all readers, whether conference attendees or researchers and practitioners in the field of academic integrity, to immerse themselves in the abstracts presented here. May this collection ignite fruitful discussions, inspire collaborations, and drive advancements in our pursuit of ethical academic practices.

As we embark on this academic journey together, let us embrace the challenges posed by AI and chart a course towards a future that upholds the highest standards of integrity. Together, as a united community, we can cultivate an environment where academic excellence flourishes, and ethical conduct remains the cornerstone of our endeavours. Thank you for your active participation and support, which have played a pivotal role in making this conference a resounding success. I am truly proud to be part of this extraordinary fellowship.

With warm regards, acknowledgement of the contribution of Chat GPT, approval of the entire generated content, and statement that I could not write it better.

Tomáš Foltýnek

President of the ENAI Board

Greetings from the Host

Dear Friends and Colleagues, - Current and future!

It is a great pleasure to welcome you all to Derby, a city with a rich history and culture set within a wider area of attractions including the stunning Peak District and Derbyshire countryside. I am pleasantly surprised and gratified to see the record attendance. This is the 9th European Conference on Ethics and Integrity in Academia, continuing the long tradition of ENAI promoting integrity/ethics within Europe and beyond. I strongly believe, scholarly activities should reach beyond boarders, and am delighted to welcome over 150 delegates from six different continents. I am sure you will enjoy the interactions amongst international experts, and researchers and academics in the field of integrity sciences and beyond.

I started this journey in the field of ethics and integrity in 2002 when I collaborated with Northumbria Learning. I am particularly proud of ENAI and its members for tirelessly working towards achieving this. I noticed many student communities embracing integrity in their scholarly activities and beyond. We have encouraged early career academics and students to submit their research findings, worked with them as mentors to improve their submissions and transformed into impactful outputs. It is not an easy task. Helping the early career academics and researchers without expecting anything back, that itself a hallmark of professional integrity; and I take this opportunity to thank all our committed reviewers for their patience and dedication to achieve this.

We are living in an era of artificial intelligence (AI) which can be perceived as a double-edge sward. Whilst some academics embrace generative AI (such as Chat-GPT) as the revolution for academic writing, others cast doubts about their capability. Chat-GPT itself claims "*I am just a text generator. I do not have the ability to determine what is ethical or not; I can't think, and I don't even understand the meaning of the sentences I generate".* There are, indeed, several examples of Chat-GPT generated texts being deceptive, evasive, and deceitful with ambiguity in information composed of historically wrong facts. In contrast, I also seen praises on how Chat-GPT can effectively be used as a tool in academic writing. Interestingly, I also read guidelines from (some) publishers on how to cite and reference Chat-GPT. Are we quickly making reactive decisions without understanding nor evaluating the pros and cons of this new tool? Is it a tool for academic writing or terminator of originality and integrity? Is generative AI that trustworthy to provide instructions for Harvard style (or other forms of) referencing guidelines? If not, can we produce a universal guideline for using generative AI in academic writing? We need to obtain answers to these questions first.

Of course, at one point, we all will inevitably be forced to 'embrace' artificial intelligence into our day-today life; but my question is whether these "text generating tools" are truly reflecting AI (Artificial Intelligence)? Interestingly, we have received many abstracts in this topic. I am sure we will find an answer for this issue in this conference. Let's engage is meaningful dialogues about this and other issues in a constructive way in this conference. I am happy to note so many scholars are planning to attend on-site. This would help us to generate lively, and uninterrupted discussions. I am sure you will enjoy the interactions amongst international experts, researchers, and academics in the field of integrity sciences and beyond. We have also organised some social activities to create a friendly fun atmosphere and I look forwards to personally interacting with you all.

This is my first experience hosting an international conference beyond my subject area, and it has been a challenge, especially to offer this as semi-hybrid mode. Therefore, should we face any unforeseen challenges during the conference, please bear with me.

Together, let's make this conference a success!

S D Sivasubramaniam

Head of Biomedical and Forensic Science

University of Derby

Vice Chancellor's Welcome Message

On behalf of the University of Derby and the organizing committee, I am delighted to welcome you to this International Conference on Ethics and Integrity in academia. It is an exciting time for the academic community focussing on academic integrity, especially in the era of artificial intelligence (AI). The integration of AI in education is a reality we must embrace. I am sure this conference will productively explore how we can leverage the opportunities that AI presents and use it in a productive way without affecting the integrity, ethos, and ethics of our institutions.

We are pleased to be a part of European Network for Academic Integrity (ENAI), and I am proud to claim that the University of Derby has been one of the pioneers in integrity education. At the University of Derby, we place delivering excellence and opportunities for our students at the heart of all we do, and this extends to engaging students in the value and importance of integrity, both in relation to their academic studies and in their future careers. In 2000, we were among the first UK universities to establish an online student platform, PLATO (Plagiarism Teaching Online), as a self-learning tool for students. We have continued to transform our efforts into investigating novel, student-centred teaching approaches to enhance ethics and integrity education, and the University is proud that your host, Dr Shiva Sivasubramaniam, has gained a strong reputation for his work in this field.

This conference provides an excellent opportunity to come together as a community of experts, and the programme promises an exciting array of discussions and opportunities for learning and networking. The backdrop of the historic city of Derby will, I hope, add to your enjoyment of this conference, and provide a stimulating and inspiring experience. Thank you for attending the conference and for bringing your expertise to share with this community. I wish you a productive and thought-provoking time together.

Professor Kathrine Mitchell

The Vice-Chancellor – University of Derby

The Dean's Message

On behalf of the College of Science and Engineering, it is my pleasure to invite each one of you from all over the world to attend the 9th European Conference on Ethics and Integrity in Academia (ECEIA) in University of Derby, UK. I am delighted to note the conference is sharing insight into the recent research and teaching strategies, in the fields of ethics and academic integrity. The topic has gained immense interest amongst academics, student communities and beyond. Integrity should be embraced by all within the society. As an organisation we closely work with our students to enhance academic integrity throughout their education. We work with local schools to initiate the integrity education from secondary education which can then be scaffolded in the university. As such, hosting this conference would enhance this commitment.

The conference organising committee has produced an exciting schedule including stimulating keynote speakers, panel discussions and presentations. I am grateful for their willingness to share their knowledge and experience makes this event possible. During this event, I encourage you to take advantage of all the resources available to you, make contacts and forge connections that will reinforce collaborations.

I am looking forward to an excellent meeting with great academics, researchers, and students from different countries around the world and sharing new and exciting research in the fields of ethics and academic integrity.

Professor Christopher Bussell

Pro Vice-Chancellor / Dean – College of Science and Technology

Our Proud Sponsors

Full Conference Programme - 2023 – A Glance

<table>
<tr><th>12th July 2023</th><th>13th July 2023</th><th>14th July 2023</th></tr>
<tr><td rowspan="2">Registration
(08:00 to 08:55)</td><td>Registration
(08:00 to 08:25)</td><td>Registration
(08:00 to 08:25)</td></tr>
<tr><td rowspan="2">Keynote 2: Mary Davis -
(08:30 to 09:30)</td><td rowspan="2">Keynote 3: Prof Michael Draper - (UK)
(08:30 to 09:30)</td></tr>
<tr><td>Grand Opening
(09:00 to 09:30)</td></tr>
<tr><td>ENAI presentation
(09:35 to 10:05)</td><td rowspan="2">Parallel sessions 3: (30 mins each)
(09:35 am to 10:35)</td><td>Journal Presentation (JAET)
(09:35 to 10:05)</td></tr>
<tr><td>Refreshments</td><td>Refreshments</td></tr>
<tr><td>Keynote 1: Professor Serhiy Kvit -
(10:35 to 11:35)</td><td rowspan="3">Visit to Kedleston Hall with packed lunches (10:40 to 13:10)</td><td rowspan="2">Parallel sessions 5: (30 mins each)
(10:30 am to 12:00)</td></tr>
<tr><td>Parallel sessions 1: (30 mins each)
(11:40 to 12:40)</td></tr>
<tr><td>Lunch + Poster Viewing
(12:40 to 13:40)</td><td>Lunch + Poster Viewing
(12:05 to 13:00)</td></tr>
<tr><td rowspan="3">Parallel sessions 2: (30 mins each)
(13:40 to 15:40)</td><td>Travel back to Conference Hall by Coach
(13:10 to 14:00)</td><td rowspan="2">Panel Discussion 2: EU Experts (13:00 to 14:00)</td></tr>
<tr><td>Free time
(Comfort Break)
(14:00 to 14:05)</td></tr>
<tr><td>Journal Presentation (IJEI)
(2:05 to 2:35)</td><td rowspan="2">Parallel sessions 6:
(14:05 pm to 15:35)</td></tr>
<tr><td>ENAI's Annual General Meeting with refreshments
(15:45 pm to 17:45)</td><td>Panel Discussion 1: UK experts
(14:35 to 15:35)</td></tr>
<tr><td>Sponsor session: AI- A threat or an opportunity to Academic Integrity?
(17:50 pm to 18:50)</td><td>Parallel sessions 4: (30 mins each
(15:40 to 17:40)</td><td>Closing Ceremony
(15:35 to 16:15)</td></tr>
<tr><td>Welcome Reception
(19:00 to 21:00)</td><td rowspan="2">Gala Dinner with light music
(19:00 to 21:00)</td><td rowspan="2"></td></tr>
<tr><td></td></tr>
</table>

Conference Scientific Presentations

Day 1: 12th of July 2023 – Scientific Sessions

10:35 – 11:35 **OL2** (Main Conference Hall) – Online enabled *Session chair:* **Tomáš Foltýnek**	**Keynote 1** **University Autonomy as a Value Basis and Necessary Environment for Academic Integrity** Serhiy Kvit - President of the National University of Kyiv-Mohyla Academy
11:40 – 12:40	**Parallel session 1**
OL2 (Main Conference Hall) – Online enabled *Session chair:* **Sandie Dann**	**Near-duplicate detection in large collections of handwritten essays** *Yury Chekhovich, Evgeny Finogeev, Mariam Kaprielova, Aleksan Kildyakov & Temirlan Seil*
	The role of peer influence in fostering a culture of academic integrity: Preliminary results from 'Research Camp' at Woodstock School *Bradford Barnhardt, John Robertson, Vandana Sharma-Ferguson, Tesal Sangma, Agustin Silvadiaz, Rahima Thomas, Imtiaz Rai & Shivom Sood*
OL1 *Session chair:* **Mariëtte van den Hoven**	**General Processes and Specific Challenges to build a multi-institutional Research Integrity Office in India** *Sabuj Bhattacharyya, Biswa B Mahapatra, Dasaradhi Palakodeti, Raj Ladher, Sanjay P Sane & Arvind Ramanathan*
	Just the tip of the iceberg! Fake degrees examined through topic modelling and Internet protocols. *Jamie J. Carmichael & Sarah E. Eaton*
HEAP *Session chair:* **Sonja Bjelobaba**	**Publication ethics module: co-authorship and contributorship in research, university-business collaboration, and in citizen science** *Sonja Bjelobaba & William Bülow O'Nils*
	Testing of AI Detection Tools *Tomáš Foltýnek, Alla Anohina-Naumeca, Sonja Bjelobaba, Jean Guerrero-Dib, Petr Šigut, Olumide Popoola, Lorna Waddington, Július Kravjar & Debora Weber-Wulff*
T008 *Session chair:* **Rita Santos**	**Lecturer, English language tutor, and student views on the educative role of proofreading** *Nigel Harwood*
	Teaching scientific integrity to PhD students: online courses versus face-to-face lectures *Nataliya Sira & Dominik Groß*

B105 *Session chair:* ***Vadivel Parthsarathy***	**Contract Cheating among Postgraduate Students and Staff of Public Universities in Ghana: An Exploratory Study** *Ivy Kesewaa Nkrumahm, Lebbaeus Asamani, Isaac Buabeng, Kyeremeh Dabone-Tawiah, Daniel Miezah & Peter Arhin*
	Adherence to the Principles of Academic Integrity: A Theoretical and Practical Approach *Eszter Benke & Anea Szőke*
13:40 – 15:40	**Parallel session 2**
OL2 (Main conference hall - online enabled) *Session chair:* **Bibek Dahal**	**Socio-Cultural Aspects of Exam Cheating in Nepali Higher Education: A Call for Research Action** *Devi Ram Acharya & Bibek Dahal*
	Academic integrity in school education: Exploring the research landscape *Özgür Çelik, Bradford Barnhardt, Colleen Fleming, Dita Henek Dlabolová, Güneş Saygı, Ian G. Kennedy, Irene Glendinning, Leeanne Morrow, Rita Santos, Salim Razı, Shivadas Sivasubramaniam, Temel Serdar Yılmaz, Zakir Hossain, Zeenath Reza Khan*
	Ombudspersons as proponents of academic integrity *Jan Gałkowski*
	Humanities in training medical students: what does integrity mean to them? *Laura Ribeiro*
OL1 *Session chair:* **Sarah E. Eaton**	**Chilean Academic Integrity leaders' meaning making through the stories of their current leadership roles.** *Beatriz A. Moya & Sarah E. Eaton*
	Development and Validation of an Instrument to Assess the Knowledge, Practices, and Perceptions towards Predatory Journals *Sumayyia Marar, Muaawia A. Hamza & Amani Abu-Shaheen*
	The virtues and vices of those who research, those who teach, and those who learn *Katy Dineen*
HEAP *Session chair:* **Thomas Lancaster**	**Do My Mindset and Actions Align? Comparing Self-reported Rates of Academic Integrity Departures Among Students Who Differ in Their Attitude Towards Academic Integrity** *Kelley A. Packalen*
	Ethically Significant Moments as a teaching concept *Christian M. Simon*
	Cross-cultural and perceptual influences on ethical usage of artificial intelligence-based tools in higher education *Sabiha Mumtaz, Michael Weiss & Jamie J. Carmichael*
	Can Machine Generated Text Be Detected? *Thomas Lancaster*

T008 *Session chair:* **Charlotte Chandler**	**Lecturer, language tutor, and student perspectives on the ethics of the proofreading of student writing** *Nigel Harwood*
	Exploring the effects of paraphrasing tools on students' academic writing skills and any subsequent correlation with instances of plagiarism *Ajrina Hysaj, Mark Freeman, Salim Razi & Zeenath Reza Khan*
	The supply chain of contract cheating: the sum of its parts - A case study of investigating admission fraud and contract cheating at the University of New South Wales *Darcey Dahl, Julia Lines & Brandon Ng*
	Student Academic Integrity Champion Model: proactive steps towards campus-wide efforts in building a culture of integrity *Zeenath Reza Khan, Sheelagh Wallace, Ajrina Hysaj, Akshita Bhatia & Neha Hemnani*
B105 *Session chair:* **Sonja Bjelobaba**	***ENAI recommendations on the ethical use of AI (1 hour session)*** *Tomáš Foltýnek & Sonja Bjelobaba*
	Investigating university policies pertaining to academic ethics and integrity in Bulgaria: a study protocol *Irena Vassileva & Mariya Chankova*
	The curriculum dilemmas in fostering future citizens to collaborate and to compete. *Charlotta Rönn*

Day 2: 13th of July 2023 – Scientific Sessions

8:30 – 9:30 **OL2** (Main Conference Hall) – Online enabled *Session chair:* **Shiva Sivasubramaniam**	**Keynote 2** **Including everyone in academic integrity: policies and teaching practice to engage all students and staff.** Mary Davis, Oxford Brookes Business School, Oxford Brookes University, UK
09:35 – 10:35	**Parallel session 3**
OL2 (Main Conference Hall) – Online enabled *Session chair:* **Zeenath Khan**	**Students as Leaders – Developing an Academic Integrity Ambassador Program** *Claudia Gottwald*
	Plagiarism and Writing in the Age of Artificial Intelligence *Erhan Simsek*

OL1 *Session chair:* ***Debora Weber-Wulff***	**Academic Integrity in Everyday Life at German Universities** *Debora Weber-Wulff*
	Anti-corruption compliance in higher education: Foreign experience and Ukrainian practice *Yuliia Lomzhets, Mariia Tsypiashchuk, Peter Steciotc & Oksana Bronevytska*
T008 *Session chair:* **Thomas Illingworth**	**Ethical approval Vs. compliance of basic research ethics with common sense: A situation analysis** *Shiva Sivasubramaniam*
	Ethical Implications of Research and Research Capacity-Building Collaborations between Higher Education Institutions in the Global North and Global South *Dimitar Angelov*
HEAP Lecture Theatre *Session chair:* **Rita Santos**	**Aligning Policy, Pedagogy and Practice: The Language of Academic Integrity and Assessment at Birmingham City University** *Shivani Wilson-Rochford*
	A scoping review of the topics, issues and needs in current academic integrity literature. *Rita Santos, Temel Serdar Yılmaz, Özgür Çelik, Rabia Börekci, Meltem Baysal Çalışkan & Hatice Sezgin*
B105 *Session chair:* **Ann Rogerson**	**The iterative process of academic writing: How undergraduate students review their assignments to prevent plagiarism?** *Catherine Deri*
	Are we preparing pre-service teachers to embed academic integrity in K-12 curriculum? An Australian perspective. *Ann Rogerson, Claire Rogerson & Tiffani Apps*
14:05 – 14:35 **OL2** (Main Conference Hall) – Online enabled *Session chair:* **Sarah E Eaton**	**International Journal for Educational Integrity (IJEI): Publishing with IJEI in the fields of academic integrity and beyond** Sarah E Eaton
14:35 – 15:35 **OL2** (Main Conference Hall) – Online enabled *Session chair:* **Sarah E Eaton**	**Panel Discussion 1: Global views on academic integrity from UK perspectives** **Panel members:** *Robin Crockett, Sandie Dann, Michael aper, Irene Glendinning & Thomas Lancaster*
15:40 – 17:40	**Parallel session 4**

OL2 (Main Conference Hall) – Online enabled *Session chair:* **Salim Razı**	**On Integrity Plans & Disciplinary Expectations** *Anita Chaudhuri*
	Practical Responses to Artificial Intelligence Generated Texts in Academic Integrity Policies *Salim Razı, Sarah E Eaton, Zeenath Reza Khan, Rita Santos, Özgür Çelik, Teddi Fishman & Shiva Sivasubramaniam, Sonja Bjelobaba, Gabor Laszlo, & Amani Abu-Shaheen*
	Building a higher education academic integrity policy corpus *Salim Razı, Ece Zehir Topkaya, Özgür Çelik, Rita Santos & Shiva Sivasubramaniam*
	Modelling student trust profiles in a mathematical course - a South African perspective *Annette van der Merwe*
OL1 *Session chair:* **Martine Peters**	**Exploring Perceptions and Perspectives on Quality Assurance and Plagiarism in EFL Classes** *Ajrina Hysaj & Mark Freeman*
	The Ecosystem of Commercial Academic Fraud: The Academic Underworld of Contract Cheating, Admissions Fraud, Contract Cheating and Paper Mills *Sarah E Eaton & Jamie Carmichael*
	Investigating indicators of academic misconduct through forensic analysis *Clare Johnson & Mike Reddy*
	Private and Public Schools: Are they the same when it comes to plagiarism prevention? *Martine Peters & Tessa Boies*
T008 *Session chair:* **Irene Glendinning**	**SEM Model the Cumulative Effect of Personality, Motivation, Students' Achievement, and Statistics Anxiety on Academic Dishonesty in Social Sciences Students** *Yovav Eshet, Pnina Steinberger & Keren Grinautsky*
	A Departmental Initiative for Developing Academic Integrity Practices in Students and Staff: Evaluating Processes and Training *Alexa Kirkaldy, Asima Iqbal, Lauren Schrock & Nicola Knowles*
	Where do we make mistakes? – Text Matching Software Implementation in Georgian Higher Educational Institutions *Giga Khositashvili*
	Consultation on student use of artificial intelligence tools *Irene Glendinning, Lisa Ganobcsik-Williams & Julie McCall*
HEAP Lecture Theatre *Session chair:*	**Testing a student-developed academic integrity forensic tool to analyse academic misconduct.** *Zander Janse van Rensburg, Neels Kruger & Johan Venter*
	"Be clear about being unclear": Ambiguous assessment briefs resulting in misinterpretations and academic misconducts

Shiva Sivasubramaniam	*Shiva Sivasubramaniam, Salim Razi & Zeenath Khan*
	What can professional certification and academic integrity learn from each other? *John Kleeman*
	Forewarned is forearmed? Designing an online, self-access pre-arrival module on academic integrity *Sarah Taylor*
B105 *Session chair:* ***Julia Prieß-Buchheit***	**Students as Partners promoting Academic Integrity: Transdisciplinary reflections founded on Epistemologies of the South** *Beatriz A. Moya, Héctor A. Turra & Sarah E. Eaton*
	Role of student peer champions in building a culture of academic integrity *Serene Regi John, Sruthi Ramdas, Shaniya Michaelanto Stumen, Sarah Wilson & Zeenath Reza Khan*
	Ethical Beliefs and Controversies of Computer Science Teaching Assistants *Tomáš Foltýnek & Martin Ukrop*
	Plagiarism without plagiarists Bogdan Popoveniuc

Day 3: 14th of July 2023 – Scientific Sessions

8:30 – 9:30 **OL2** (Main Conference Hall) – Online enabled *Session chair:* **Irene Glendinning**	**Keynote 3**
	The Council of Europe Recommendation CM/Rec(2022)18 of the Committee of Ministers to member States on countering education fraud Michael Draper, Director Swansea Academy for Inclusivity and Learner Success, Swansea University
09:35 – 10:05 **OL2** (Main Conference Hall) – Online enabled *Session chair:* **Loreta Tauginiene**	**Journal of Academic Ethics (JAET): Addressing and Publishing ethical issues in post-secondary education and beyond** Loreta Tauginiene and Shiva Sivasubramaniam
10:30 – 12:00	**Parallel session 5**

OL2 (Main Conference Hall) – Online enabled *Session chair:* **Pegi Pavletić**	**Academic integrity practices and perceptions of undergraduate students at the University of Porto** *Ana Cristina Veríssimo, Peo Oliveira, Paula Mena Matos, Milton Severo & Laura Ribeiro*
OL1 *Session chair:* **Salim Razi**	**Pathways to Academic Integrity: Supporting the Struggling Student** *Elva Casey*
	Can text analysis find tadpoles? Linguistic investigation of image fraud in scientific research. *Olumide Popoola*
T008 *Session chair:* **Thomas Lancaster**	**UK Universities policy responses to Artificial Intelligence (AI) related academic misconduct in undergraduate studies.** *Stephanas Lim & Qianyi Zhang*
	The Benefits of Academic Integrity Networks – Exploring the London and Southeast Academic Integrity Network *Thomas Lancaster, Steph Allen & Mary Davis*
	Academic integrity policies in higher education institutions: a corpus linguistics investigation of responses to technological threats *Mike Perkins & Jasper Roe*
HEAP Lecture Theatre *Session chair:* **Stephen Gow**	**Sharing Experiences: Development of a game-based module to raise awareness on avoiding plagiarism.** *Zeenath Reza Khan, Mike Reddy, Tan Chin Ike, Jarret Dyer, Salim Razi, Sonja Bjelobaba, Shiva Sivasubramaniam, Ann Rogerson, and Lorna Waddington*
	Personality Traits and Academic Integrity in The Hy Flex Learning Environment among STEM Students *Yovav Eshet, Nomy Dickman & Yossi Ben Zion*
	Developing University assessment and academic misconduct policy in response to Artificial Intelligence and Machine Translation tools. *Stephen Gow & Eddie Cowling*

13:00 – 14:00 **OL2** (Online enabled *Session chair:* **Sonja Bjelobaba**	**Panel discussion 2:** **Where to go next? Embracing new challenges and opportunities in research integrity and ethics, based on lessons learned from EU projects.** **Panel members:** *Julia Prieß-Buchheit, Mariëtte van den Hoven, Anna Abalkina & Lisa Diependaele*
14:05 – 15:35	**Parallel Workshops (session 6)**
Room 1 (**OL2**) (Online enabled) *Session chair:* **Caroline Campbell**	**Authorship attribution in multidisciplinary research teams: what lessons can be learned from the ENAI projects and working groups?** *Laura Ribeiro*
	AI vs AI: Evaluating the inevitable changes in electronically evolving education. *Shiva Sivasubramaniam*
OL1 *Session chair:* **Rita Santos**	**Developing resources for supporting ethical publishing and dissemination activities** *Irene Glendinning, Shiva Sivasubramaniam, Mwaawia Ahmed Hamza, Salim Razi, Sia Miri, Sonja Bjelobaba & Ana Cristina Verissimo*
	A workshop on mapping academic integrity as key competence for United Nations Sustainable Development Goals *Zeenath Reza Khan, Sarah Elaine Eaton, Shiva Sivasubramaniam, Michael Draper, Rita Santos, Ajrina Hysaj, Salim Razi, Belinda Gibbons, Melodena Stephens, Sonja Bjelobaba, & Veena Mulani*
T008 *Session chair:* **Mary Davis**	**Three levels of Prevention: Using the Healthcare Framework of Prevention to Foster Integrity and Prevent Academic Misconduct in the Classroom.** *Jessica Kalra*
	Addressing conflict of interest in research, business, and society collaboration *Julija Umbrasaitė & Birutė Liekė*
HEAP Lecture Theatre *Session chair:* **Serhiy Kvit**	**Academics and AI initiatives** *Lorna Waddington & Caroline Campbell*
	Exploring the relationship between quality assurance and dynamic (self-) regulation: A partnership approach to regulation and enhancement of academic integrity in Ireland *Mairéad Boland & Sue Hackett*
B105 *Session chair:* **Debbie De**	**Enhancing academic practice in Higher Education - how to you do it?** *Debbie De*
	Evaluating the efficacy of gamified tutorials to promote academic integrity in online education. *John Paul Foxe, Amy Lin, Naomi Go, Cedar Leithead, Allyson Miller, Shannon Nguyen & Kasha Visutskie*

Keynote Speeches

University Autonomy as a Value Basis and Necessary Environment for Academic Integrity

Serhiy Kvit, President of the National University of Kyiv-Mohyla Academy, Ukraine

In his speech, Serhiy Kvit proves that the adaptation and proper understanding of the essence of quality assurance standards and the concept of academic integrity are not only about the introduction of well-known rules and approaches. It is not enough to change the national legislation accordingly; there is a need to develop the internal academic culture of Ukrainian universities.

The paper is based on real cases of higher education reform, including the introduction of university autonomy, the establishment of a national quality assurance system, and the strengthening of academic integrity in independent Ukraine, in which the author was involved.

Interestingly, in Soviet times, plagiarism was not a way of building an academic career. Instead, in independent Ukraine, in the 1990s and early 2000s, plagiarism became total and pervasive. However, that did not mean that the Soviet authorities were honest. Many young researchers were forced to first work on dissertations for their bureaucratic bosses, and only after that they could defend their own theses. That is, we can define ghost writing as the most common form of violation of academic integrity in Soviet times. At least, if we do not consider international industrial espionage as part of the economic development policy of the USSR.

The revival of the Kyiv-Mohyla Academy (KMA), the oldest Ukrainian institution of higher education, founded in 1615, but closed by the Soviet authorities in the 1920s, to the status of a national university, led to the emergence of a unique institutional agent of educational and social change. In particular, in the field of academic integrity, it meant the adoption in 1998 by the KMA of the Provisions on the institutional policy for observance of academic integrity, the first regulation of this kind in Ukraine. It resulted in zero tolerance for plagiarism, as the most common form of academic integrity violation in Ukraine. The public activity of Kyiv-Mohyla Academy proves that the reputational factor comes to the forefront in the task of ensuring the quality of higher education and academic integrity. The next obstacle that still needs to be overcome is related to the translation and understanding of key concepts. For example, the term “academic integrity” has a slightly different meaning in the Ukrainian language, which has more to do with “correct”, well-doing behaviour rather than with a violation of the integrity (as wholeness) of academic life as such. There is also a conceptual clash of approaches between the National Agency for Higher Education Quality Assurance (NAQA), which uses the concept of “common sense” in its normative documents, and the position of the Ministry of Justice of Ukraine, which denies the possibility of using such a norm in national legislation. The establishment of NAQA, stipulated by the above-mentioned Law “On Higher Education” (2014), led to the emergence of one more institution that defined its mission as working on the basis of trust, initiative, and mutual values (NAQA, 2019). The Agency is a partner of universities, not their controller, which, in addition, offers practices of supportive communication (Serhiy Kvit, Nataliia Stukalo, 2021). It is also important that NAQA created an effective international Advisory Board (NAQA, 2020), which provides extremely valuable assistance for taking principled decisions, creating a regulatory framework, and participating in court cases. The history of NAQA’s defending the appropriateness of its decisions in the courts deserves special attention. Thus, in 2021 alone, the NAQA was taking part in 16 court cases at the same time. Those were mostly lawsuits from individuals who had disagreed with NAQA’s identification of plagiarism in their publications.

It is interesting that they mainly challenged not their violation of the principles of academic integrity as such, but the procedural right of NAQA to take decisions on such cases. Although it is provided for by national legislation. Judicial casuistry became the main tool in the fight against NAQA activities. However, in the end, the Supreme Court of Ukraine recognized that all NAQA's efforts to uphold the principles of academic integrity were appropriate and legal (The Supreme Court of Ukraine, 2023). One of the main questions that need to be answered in the context of adherence to the principles of academic integrity in Ukraine is the following: who is directly responsible for such principles? We understand that it is universities would be the most interested in observing these principles since the development of their reputational capital depends on it.

Unfortunately, it is not so in Ukraine yet. After the adoption of the Law "On Higher Education" in 2014, Ukrainian institutions of higher education have gained academic autonomy, but still do not have financial autonomy. That's why, they cannot capitalize on their academic achievements, and their place in the market and access to the resources necessary for development are not yet dependent on their reputation. That is why in 2020, the NAQA decided to draft a special bill "On Academic Integrity," which means that the main responsibility in the current environment is transferred to the national level. This law will also establish the main concepts and procedures, which will make it impossible for violators to use casuistic approaches for their defence in court. Currently, the Chairman of the Committee on Education, Science, and Innovations of the Parliament of Ukraine, expressed the hope that the Law "On Academic Integrity" will be adopted by the end of 2023 (Serhiy Babak, 2023). All the efforts aimed at developing the academic sphere in independent Ukraine in the context of achieving appropriate standards of academic integrity will continue to focus on the implementation of comprehensive university autonomy and the development of a unique internal culture in each institution of higher education. Only the real self-governing status of Ukrainian universities will make it possible to activate the importance of reputational factors to ensure their quality and academic integrity. Accordingly, the role of responsible university communities and their ethical choices will be growing.

References

NAQA. Mission Statement and Strategy of The National Agency for Higher Education Quality Assurance (2019)**:** https://en.naqa.gov.ua/?page_id=642
NAQA. Advisory Board (2020): https://en.naqa.gov.ua/?page_id=1035

NAQA. Report on the Activities of the National Agency for Higher education Quality Assurance (2022), pp. 123-127: https://en.naqa.gov.ua/wp-content/uploads/2022/12/REPORT-ON-THE-ACTIVITIES-OF-THE-NATIONAL-AGENCY.pdf

The chairman of the Parliament committee *Serhiy Babak* expects the law on academic integrity to be adopted in 2023 // INTERFAX, 15.02.2023: https://interfax.com.ua/news/general/891461.html

Serhiy Kvit, Nataliia Stukalo. FIDES FACIT FIDEM: Building Trust-Based QA through Supportive Communication and Transparency // Quality Assurance Review for Higher Education, Vol. 11, No. 1 – 2, 2021, pp. 39 – 47:

https://www.aracis.ro/wp-content/uploads/2022/03/4-Kvit-Stukalo.pdf

The Supreme Court of Ukraine. RESOLUTION ON BEHALF OF UKRAINE dated March 17, 2023, Kyiv. Case No. 640/835/20, administrative proceeding No. 9901/8729/21:

https://reyestr.court.gov.ua/Review/109635836

INCLUDING EVERYONE IN ACADEMIC INTEGRITY: POLICIES AND TEACHING PRACTICE TO ENGAGE ALL STUDENTS AND STAFF

Dr Mary Davis, Academic Integrity Lead, Oxford Brookes University

This keynote is focused on including everyone in academic integrity by reflecting on our own academic integrity experiences, and on promoting inclusion in academic integrity policies and teaching practices. The aim of the keynote is to encourage and support greater inclusion in academic integrity. It is crucially important to involve everyone in academic integrity, as it is central to student experience, student attainment, professional development, staff experience and institutional reputations, and beyond education has a long-term impact on professions and society. All individuals in HE, even those who may consider academic integrity to be 'a side issue' or outside of their role, need to be actively involved, as declared in the Academic Integrity Charter: 'Everyone is responsible as part of a 'whole community' approach' (QAA, 2020, p.1). As a means of seeing this in practice, I will begin by sharing the key milestones of my academic integrity journey and encourage delegates to reflect on their own experiences, motivations and sense of their roles in academic integrity, which can be shared with others.

The second part of the presentation will focus on promoting greater inclusion in academic integrity procedures, policies and teaching. Inclusion has become a priority in Higher Education, and institutions are required to demonstrate how they meet inclusive curricula standards (Equalities Act, 2020), provide fully accessible resources (Gov.UK, 2021) and act on attainment gaps for specific student groups (Office for Students, 2021). Nevertheless, inclusion in academic integrity is an area that has been overlooked until quite recently, despite continuous evidence that certain groups of students are over-represented in academic conduct investigations (Gray, 2020; Pecorari, 2016). Opportunities to learn about good academic practice have been considered unequal (Wingate, 2015) and some groups such as international postgraduate students have reported that they are left to figure it out for themselves as they are 'supposed to know' (Davis, 2012). In these situations, there is an obvious need for greater inclusion in academic integrity, as declared in the ICAI Fundamental Values: 'Creating equitable and inclusive approaches to learning supports the values of academic integrity' (ICAI, 2014). My recent research into inclusion issues (Davis, 2022) revealed that students going through academic conduct investigations may feel disadvantaged due to their neurodiversity, international domicile and prior experience. My student participants reported significant anxiety about judgement and a lack of support with learning about academic integrity. I will demonstrate the way I addressed these inclusion issues through making a strong case to change the academic conduct procedure for students with first minor breaches in their first year of study, so that they are provided with an educational route instead of investigation and punishment.

Problems with academic integrity policies in terms of inclusion clearly need to be addressed, such as location, format and involvement of students in the policy. Many policies are still located in difficult locations that require clicking through many links to find (Stoez *et al*., 2019); it needs to be recognized that if we want students to access the policy, it should not be hidden. The format needs to be accessible, so that it is easy for all students to follow (Reedy *et al.*, 2021). As part of my drive to make academic integrity inclusive, I mapped institutional academic integrity documents to the Universal Design for Learning (UDL) principles for comprehension (CAST, 2018). This led to improvements in consistency across all documents, as well as addressing the four main checkpoints for comprehension: activating prior knowledge, highlighting relationships, guiding information processing and maximizing transfer (CAST, 2018).

These changes have meant the documents now incorporate features to assist comprehension for all students, such as standard numbering, key points in bold and consistent terminology. In this presentation, I will also highlight further examples of positive inclusive practice in academic integrity policies, including developing a statement against racism in matters relating to academic integrity (Alberta Council on Academic Integrity, 2020), the involvement of students and their champion role in academic integrity policy (Khan, Mumtaz and Rakhman, 2020) and the use of flow charts to explain academic conduct processes (Reedy *et al.*, 2021). In addition to improving inclusion in policies, I argue that it is equally important to address inclusion in teaching academic integrity, by ensuring all students have learning opportunities in 'accessible, relevant and engaging' formats (Thomas and May, 2010). Evidence suggests that sometimes staff are unsure how to engage large groups of students in academic integrity, especially if they come from Widening Participation backgrounds as mature students (Fudge *et al.*, 2022). Educators need to recognize that academic integrity is an area of knowledge and skills that needs to be taught to all students and reinforced throughout their courses of study (Davis, 2012). To foster greater inclusion in teaching academic integrity at this conference, I will present resources from a QAA funded collaborative enhancement project that I led, involving four UK HEIs called 'Improving student learning by joining up accessibility/inclusion and academic integrity' (QAA, 2023). The project teaching resources were carefully designed by academic integrity experts working with inclusion experts, as well as Student Union officers and students, so that all perspectives were included, and the resources created are as accessible as possible. The resources were rechecked using accessibility tools and tested in the institutions. They include a PARTNERS template to assist staff in developing their own resources and checking them against inclusion criteria, and interactive teaching resources for students in the form of games and discussions. The resources are available as open access in order to assist educators in other institutions to improve inclusive practice in academic integrity (QAA, 2023) and are shared on the ENAI educational materials list (ENAI, 2023).

Finally, at this conference in 2023, the other AI cannot be ignored. It is the subject of considerable debate, as well as future research, whether the use of free and openly available AI tools could be an opportunity for greater inclusion or whether these tools still disadvantage certain groups due to issues such as paywalls or accessibility. The importance of improving inclusion in academic integrity remains a critical goal for everyone.

References

Alberta Council on Academic Integrity (ACAI). (2020). Statement Against Racism in Matters Relating to Academic Integrity. Available at http://hdl.handle.net/1880/112728

CAST (2018). Universal Design for Learning Guidelines version 2.2. Available at http://udlguidelines.cast.org

Davis, M. (2022). Examining and improving inclusive practice in institutional academic integrity policies, procedures, teaching and support. *International Journal of Educational Integrity*, 18(14) https://doi.org/10.1007/s40979-022-00108-x

Davis, M. (2012). International postgraduate students' experiences of plagiarism education in the UK: student, tutor and expert perspectives. *International Journal of Educational Integrity*, 8(2), 21-33. Available at http://www.ojs.unisa.edu.au/index.php/IJEI/article/view/807/601

ENAI (2023). Educational materials. Available at https://academicintegrity.eu/materials/

Equalities Act (2010). Available at https://www.gov.uk/guidance/equality-act-2010-guidance

Fudge, A., Ulpen, T., Bilic, S., Picard, M. and Carter, C. (2022). Does an educative approach work? A reflective case study of how two Australian higher education Enabling programs support students and staff uphold a responsible culture of academic integrity. *International Journal for Educational Integrity,* 18(5). https://doi.org/10.1007/s40979-021-00099-1

Gov.UK (2021). CDDO Accessibility Regulations campaign information for education. Central Digital and Data Office. Available at https://www.gov.uk/government/publications/online-accessibility-regulations-campaign-supporter-pack/gds-accessibility-regulations-campaign-information-for-education

Gray, D. (2020) Closing the black attainment gap on access – Project review 2018–2020 Open University. Available at http://www.open.ac.uk/about/wideningparticipation/sites/www.open.ac.uk.about.wideningparticipation/files/files/BAME-Evidence-Base.docx

International Center for Academic Integrity (ICAI). (2014). The fundamental values of academic integrity (2nd ed.). Available at https://academicintegrity.org/wp-content/uploads/2017/12/Fundamental-Values-2014.pdf

Khan, Z. R., Mumtaz, S. and Rakhman, S. S. (2020). Mentoring to Affect Student Perceptions of Academic Integrity. In D. Velliaris (Ed.), *Academic Language and Learning Support Services in Higher Education* (pp. 98-118). IGI Global. https://doi.org/10.4018/978-1-7998-2878-5.ch004

Office for Students (2021). Degree attainment: Black, Asian and minority ethnic students. Briefing paper. Available at https://www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/effective-practice/black-asian-and-minority-ethnic-students/

Pecorari D. (2016). Plagiarism, international students and the second-language writer. In: T. Bretag (Ed.) *Handbook of Academic Integrity*. Springer, Singapore, pp. 537–550.

QAA (2020). Academic Integrity Charter for UK Higher Education. Available at https://www.qaa.ac.uk/membership/membership-areas-of-work/academic-integrity/charter

QAA (2023). Improving student learning by joining up inclusion/accessibility and academic integrity. Collaborative Enhancement Project – Oxford Brookes University, University of Southampton, Bloomsbury Institute and University of Westminster. Available at https://www.qaa.ac.uk//en/membership/collaborative-enhancement-projects/academic-integrity/the-improvement-of-student-learning-by-linking-inclusion-accessibility-and-academic-integrity

Reedy, A.K., Wurm, P.A.S., Janssen, A. and Lockley, A. (2021). A community of practice approach to enhancing academic integrity policy translation: A case study. *International Journal for Educational Integrity,* 17(12) https://doi.org/10.1007/s40979-021-00080-y

Stoesz, B.M., Eaton, S.E., Miron, J. and Thacker, E.J. (2019). Academic integrity and contract cheating policy analysis of colleges in Ontario, Canada. *International Journal for Educational Integrity,* 15(4). https://doi.org/10.1007/s40979-019-0042-4

Thomas, L. and May, H. (2010). Inclusive learning and teaching in higher education. HE Academy. Available at http://www.heacademy.ac.uk/assets/documents/inclusion/InclusiveLearningandTeaching_FinalReport.pdf

The Council of Europe Recommendation CM/Rec (2022)18 of the Committee of Ministers to member States on countering education fraud

Michael Draper, Director Swansea Academy for Inclusivity and Learner Success, Swansea University Swansea University, UK

The Council of Europe Recommendation CM/Rec(2022)18 of the Committee of Ministers to member States on countering education fraud was adopted on 13 July 2022 [1]

The 17 recommendations or articles made are:

1.Aim and scope

2.Definitions

3.Awareness raising and information

4.Training

5. Plagiarism and the use of plagiarised documents and content

6. Advertising and promotion of education fraud

7. Legal frameworks, laws and practices

8. Codes of ethics

9. Education terminology

10. Public health, safety and the education of future generations

11. Whistle-blowers

12. Use of digital solutions

13.Research

14. International co-operation

15.Data collection

16.Monitoring

17.Evaluation and review

This Recommendation builds upon and is an extension of earlier work of the Council of Europe. A clear political mandate to fight fraud in education alongside corruption was given in the Final Declaration from the Council of Europe Standing Conference of Ministers of Education on "Governance and Quality Education" held in Helsinki on 26-27 April 2013. That mandate called for the creation of a pan-European network with a focus on:

- positive codes of conduct as a complement to anti-corruption and anti-fraud legislation for professionals who are active in education and research;
- capacity-building for all actors;
- support structures (agencies for accreditation or quality assurance);
- sharing of best practices concerning fairness and transparency;
- developing a culture of democracy and participation based on transparency, fairness and equity.

From the outset there was a reference in the mandate to legislation or a legal response to corruption and fraud in education and research amongst a range of other responses and objectives.

Recommendation CM/Rec(2012)13 of the Committee of Ministers to member States on ensuring quality education noted that education fraud can be distinguished from the wider issue of corruption in education, but the statement *'corruption is a real or potential issue in all countries and for all kinds and levels of education,'* is also true of education fraud.

It is noted on the Councils website that

"The recommendation follows four years of work in the framework of the ETINED platform of the Council of Europe on ethics, integrity, and transparency in education, and addresses the need for a common European approach in this field.

This new legal standard is structured in four dimensions: prevention, prosecution, international cooperation, and monitoring. The text makes six main recommendations to member States of the Council of Europe:

to promote quality education by eliminating education fraud;

to protect pupils, students, researchers, and staff at all levels of education from organisations and individuals engaged in selling (and advertising) fraudulent services;

to provide support for the implementation of preventative and protective measures, as well as a culture of equality of opportunity at all levels and in all sectors of education and training and in the transition between these sectors;

to monitor technological developments that could support new forms of fraud;

to facilitate international cooperation in the field;

to support wide dissemination of the recommendation.

It includes definitions, commonly agreed at European level, of education fraud, plagiarism and different types of providers of fraudulent documents such as diploma, accreditation and visa "mills" as well as essay banks.

Education is meant in its broader scope, with all measures contained in the text applying to access to education and all levels and forms of education, offline and online, from pre-primary to higher education, including vocational education and lifelong learning.

One of the key recommendations is to minimise the advertising of fraudulent services, which is exacerbated by the use of the web and of social media. International cooperation is considered as essential in this direction, for setting up a process of monitoring national and transnational fraudulent activities and information exchange."[i]

This keynote will address the 17 Recommendations adopted along with the explanatory memorandum to the Recommendation[ii]. It will consider those recommendations in the context of current issues in education fraud and responses to those issues particularly *"as Member States should regularly assess the effectiveness and consistency of their actions in the field, and identify national stakeholders involved in the process. This should be done as a self-assessment at national level. The different dimensions of education fraud contained in the recommendation could be seen also as a way to self-assess and analyse the situation at national level, identifying points of strength that can be shared with other countries, and areas of weakness where there is space for further improvement toward more effective policies and practice. This exercise could also support identification of good practices and lessons learned, that could be relevant to exchange with other countries that are facing the same challenges."*[2]

Ideally any review should be made through the exchange of information, practices and lessons

learned with other member States. This form of information sharing, that has direct links with international co-operation (Art. 14) would assist in timely strategies and policies to detect and counter new trends and phenomena in education fraud where they are in their infancy. This principle is readily applicable to and is consistent with the context of this Conference.

References

[1]https://search.coe.int/cm/pages/result_details.spx?objectid=0900001680a73b90

[2] https://www.coe.int/en/web/portal/-/for-a-quality-education-free-of-fraud-and-corruption-a-new-recommendation-adopted-by-the-committee-of-ministers

[3] https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=0900001680a6e557

[4] https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=0900001680a6e557

Conference Abstracts – Day 1

NEAR-DUPLICATE DETECTION IN LARGE COLLECTIONS OF HANDWRITTEN ESSAYS

Yury Chekhovich, Evgeny Finogeev, Mariam Kaprielova, Aleksandr Kildyakov& Temirlan Seyil

The Antiplagiat Company, Moscow, Russia

In this report, we consider the problem of near-duplicate detection in large collections of handwritten essays by means of an automatic near-duplicate detection system.

The problem of digital cheating has always been crucial (Ma et al., 2008, Zhao et al., 2022). The importance of the problem has increased over the last few years due to the rapid development of school education available online (Marasa, 2022). The majority of tasks in such schools are written by hand in ink on paper, photographed or scanned and submitted to an online system.

Cheating cases can be separated into two categories: the first category is text reuse and the second category is submitting the same paper, photographed in a different environment (for example, from another angle, in different light or in lower quality), or changed by means of automatic augmentation. In this paper we address the latter case, which we define as near-duplicate detection task for handwritten texts.

Finding near-duplicates in handwritten works is a challenge and can be considered as an important one for the educational system (Bjurestig, 2022, Ma et al., 2007; Wrigley, 2019, Longcamp et al., 2005). Despite the probably massive nature of the problem, existing

methods do not seem to be robust enough to work on large collections of handwritten homework or essays. A method to compare two handwritten documents is presented in (Krishnan et al., 2016). It is based on a similarity measure on the top of word bounding boxes vector representations, which are obtained by a convolutional neural network. Bakhteev et al., (2019) represented a simple and quite effective method based on word segmentation with further analysis of word lengths extracted from the texts. The majority of articles in the field of handwritten text analysis are based on text recognition methods (Coquenet et al., 2022; Rowtula et al., 2018; Voigtlaender et al., 2016). State of the art (SOTA) deep learning approaches achieve rather good performance on the handwriting recognition task (Coquenet et al., 2022; Voigtlaender et al., 2016). This potentially makes it possible to use optical character recognition (OCR) combined with modern plagiarism detection systems (Khritankov et al., 2015). Nevertheless, such methods have two significant disadvantages. The first one is the requirement of presence of markup for OCR. The second one is potential latency of the system. The first condition makes it difficult to apply such methods in real-life systems if the documents are written in a language with lack of such markup. For example, this disadvantage becomes crucial when it comes to OCR for Cyrillic cursive: the quality of existing approaches leaves much to be desired due to the lack of training datasets. As for the latter condition, it makes the approach not very suitable to use on large collections of handwritten documents.

The method developed by the authors consists of three stages. One of the handwritten documents in the collection is considered to be the original work. Different types of transformations could possibly be applied to the source (scaling, compression, rotation, greyscaling, etc.).

The first stage is embedding generation. An embedding is a vector representation of an input image of a handwritten document. We use a neural network to transform a handwritten document into the embedding. The second stage is search of potential duplicates (candidates). At this stage we form a fixed set of candidates from the collection for every suitable image. The special feature of this stage is the necessity to search in the index. It is obvious that we cannot compare incoming images with each object from the collection and perform the search for a reasonable time. We use a Faiss (Johnson et al., 2017) framework to build the index and perform the search. The final stage is similarity estimation between the query image and each of the candidates obtained at the previous step. This stage is performed using a deep learning approach inspired by (Sun et al., 2021).

Our solution showed Recall@1 (the fraction of relevant instances that were retrieved) over 81% with false positive rate (FPR) 0.3% on a private dataset of about 1 million real-life handwritten documents written in Russian cursive. We also conducted an experiment on public handwritten datasets IAM (Marti et al., 2002) and Read2016 (Toselli et al., 2018).

References

Bakhteev, O., Kuznetsova, R., Khazov, A., Ogaltsov, A., Safin, K., & Mottl, V. (2021). Near-duplicate handwritten document detection without text recognition. In *Komp'juternaja Lingvistika i Intellektual'nye Tehnologii* (pp. 47-57).

Bjurestig, S. (2022). Effects of Handwriting vs. Typing on the Performance of Pupils in Secondary Education.

Coquenet, D., Chatelain, C., & Paquet, T. (2022). End-to-end handwritten paragraph text recognition using a vertical attention network. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *45*(1), 508-524.

Johnson, J., Douze, M., & Jégou, H. (2017). Billion-Scale Similarity Search with GPUs. *IEEE Transactions on Big Data, 7*, 535-547.

Khritankov, A. S., Botov, P. V., Surovenko, N. S., Tsarkov, S. V., Viuchnov, D. V., & Chekhovich, Y. V. (2015). Discovering text reuse in large collections of documents: A study of theses in history sciences. In *2015 Artificial Intelligence and Natural Language and Information Extraction, Social Media and Web Search FRUCT Conference (AINL-ISMW FRUCT)* (pp. 26-32). IEEE.

Krishnan, P., & Jawahar, C. V. (2016). Matching handwritten document images. In *Computer Vision–ECCV 2016: 14th European Conference, Amsterdam, The Netherlands, October 11–14, 2016, Proceedings, Part I 14* (pp. 766-782). Springer International Publishing.

Longcamp, M., Zerbato-Poudou, M. T., & Velay, J. L. (2005). The influence of writing practice on letter recognition in preschool children: A comparison between handwriting and typing. *Acta psychologica*, *119*(1), 67-79.

Ma, H., Lu, E. Y., Turner, S., & Wan, G. (2007). An Empirical Investigation of Digital Cheating and Plagiarism Among Middle School Students. *American Secondary Education*, *35*(2), 69–82. http://www.jstor.org/stable/41406290

Ma, H. J., Wan, G., & Lu, E. Y. (2008). Digital cheating and plagiarism in schools. *Theory Into Practice*, *47*(3), 197-203.

Marasa, N. (2022). Cheating of high school students in the virtual Math class. *Journal of Educational Sciences & Psychology*, *12*(1).

Marti, U. V., & Bunke, H. (2002). The IAM-database: an English sentence database for offline handwriting recognition. International Journal on Document Analysis and Recognition, 5, 39-46.

Rowtula, V., Bhargavan, V., Kumar, M., & Jawahar, C. V. (2018). Scaling handwritten

student assessments with a document image workflow system. In *Proceedings of the IEEE conference on computer vision and pattern recognition workshops* (pp. 2307-2314).

Sun, J., Shen, Z., Wang, Y., Bao, H., & Zhou, X. (2021). LoFTR: Detector-Free Local Feature Matching with Transformers. *2021 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 8918-8927.

Toselli, A.H., Romero, V., Villegas, M., Vidal, E., & Sánchez, J.A. (2018). HTR Dataset ICFHR 2016 (1.2.0) [Data set]. Zenodo. https://doi.org/10.5281/zenodo.1297399

Voigtlaender, P., Doetsch, P., & Ney, H. (2016). Handwriting recognition with large multidimensional long short-term memory recurrent neural networks. In *2016 15th international conference on frontiers in handwriting recognition (ICFHR)* (pp. 228-233). IEEE.

Wrigley, S. (2019). Avoiding 'de-plagiarism': Exploring the affordances of handwriting in the essay-writing process. *Active Learning in Higher Education*, *20*(2), 167-179.

Zhao, L., Peng, J., Dong, L. D., Li, Y., Mao, H., Compton, B. J., Ye, J., Li, G., Heyman, G. D. & Lee, K. (2022). Effects of test difficulty messaging on academic cheating among middle school children. *Journal of Experimental Child Psychology*, *220*, 105417.

The role of peer influence in fostering a culture of academic integrity: Preliminary results from 'Research Camp' at Woodstock School

Bradford Barnhardt, John Robertson, Vandana Sharma-Ferguson, Tesal Sangma, Agustin Silvadiaz, Rahima Thomas, Imtiaz Rai & Shivom Sood
'Research Camp' at Woodstock School, India

The strong effects of peer influence on dishonest behavior are well documented. What has received less attention in the literature are the effects of peer influence on *honest* behavior. This paper describes a program undertaken over three academic years at Woodstock School in India that employed positive peer influence to foster a culture of academic integrity. This program, dubbed Research Camp, has evolved into a two-day intensive experience featuring skills workshops and individualized research mini-reports with rapid feedback. The basic structure of the program is described below, and its efficacy is indicated by survey data collected from students.

Numerous studies have reported that individuals are more likely to cheat when they perceive that their peers are cheating successfully (e.g., Battiston, Gamba, Rizzolli & Rotondi, 2021; Charroin, Fortin, & Villeval, 2022; Carell, Malstrom & West, 2005; Nora & Zhang, 2010; Tsai, 2012). Carrel, Malmstrom, and West (2008) calculated that one initial cheater in a sample of 4,900 college students could account for as many as three new ones. To make matters even more challenging, students tend to over-estimate how much cheating their peers do and may become more likely to cheat themselves due to such inaccurate perceptions (Engler, Landau & Epstein, 2008; Jordan, 2001; Rettinger & Kramer, 2009; Shipley, 2009).

The increase in cheating among students who perceive that their peers are cheating has been termed a *contagion* (Gino, Aya & Ariely, 2009; Walker, Wiemeler, Procyk & Knake, 1966). A contagion of cheating behavior may be interpreted as a progressive breakdown of the coordination effect, which holds that "the more consistently a norm is observed in society, the greater the costs incurred by an individual deviating from it" (Magnus, Polterovich, Danilov & Savvateev, 2002, p. 131; also Arthur, 1988). In other words, the expected moral and social costs of cheating vary inversely to the perceived prevalence of peer cheating. The observation that peers can influence each other to cheat more raises the question of whether this effect can be reversed. Can positive peer influence reinforce the importance of academic honesty and foster a culture of academic integrity?

The power of culture has been acknowledged many times in literature on academic integrity. Bretag (2013) argued that "to address the ongoing issue of plagiarism and other breaches of academic integrity, educational institutions must work towards fostering a culture of integrity that goes beyond deterrence, detection, and punishment of students" (p. 2). While this may be easier said than done, perhaps the well-known power of peer relationships in determining social norms offers a window into how a culture of integrity can be managed. Tsai (2012), studying peer effects on cheating in a Taiwanese context, argued that "student leaders can be the most effective peer educators. Thus, a school can train these student leaders to foster academic integrity in class" (p. 154). Research Camp at Woodstock School took up this challenge.
Research Camp is an event in which students learn the principles and skills of conducting research with integrity. Research Camp has taken place at Woodstock three times over the last three academic years (January 2021, January 2022, August 2022). It began as an initiative for middle years students (grades 6 – 8) and then grew to incorporate grades 9 and 10. This expansion was helped by the

development of a group of 'student research mentors' who could
take on classmates as mentees. All students who pass Research Camp become research mentors. During Research Camp no. 1 (January 2021), all research mentors were staff members. However, 42 students passed Research Camp no. 1 and thus became mentors for Research Camp no. 2 (January 2022). During Research Camp no. 2, an additional 60 students passed, bringing the number of student mentors to 100 for Research Camp no. 3 (August 2022). Following Research Camp no. 3, Woodstock had 158 student research mentors across grades 6 - 10, or 58% of the 271 students in those grade levels.

During Research Camp, students attend four workshops focused on key research skills (paraphrasing, citation and referencing, source evaluation, and managing research online). They then complete a 'research mini-report' that receives rapid feedback from their evaluators. Research mentors (staff and student mentors) help their mentees navigate their mini-report assignments with integrity. To avoid any conflicts of interest, mentees' work is evaluated by students and staff who have not mentored them. The evaluation of research mini-reports is completed according to a simple marking rubric. Research mini-report prompts are individualized to prevent collusion. This is done in-keeping with the principles of 'design-it-out' and 'holistic assessment' (Carroll, 2013; Heckler, Forde, & Bryan, 2013). Students are given a prompt based on either a city, a country, or a famous person. The complexity of mini-report prompts is calibrated to be grade-level appropriate. Following the latest Research Camp, student survey data was examined for differences between three groups: (1) *mentees of student mentors* (i.e., students who were mentored by peers; N = 36), (2) *mentees of teacher mentors* (i.e., students who were mentored by teachers; N = 14), and (3) *student mentors* (i.e., students who mentored their peers; N = 53). The intervention of principal interest to this study was positive peer influence. Results supported the expectation that students who were mentored by their peers (i.e., subjected to positive peer influence) would agree more strongly that academic integrity is an important norm among Woodstock students than students who were mentored by teachers.

Mentees of student mentors had higher average agreement with the statement 'Woodstock Students Take honesty on class assignments seriously' than both *student mentors* (one-tailed $t = 2.77$, $p < .01$) and *mentees of teacher mentors* (one-tailed $t = 1.41$, $p < .10$). Results of the latter t-test did not achieve $p < .05$ significance likely due to the small number of survey respondents who had been mentored by teachers (N = 14). It is notable that 96% of respondents to this survey either *agreed* or *strongly agreed* that 'being honest on class assignments is an important value at Woodstock.' No group differences emerged with respect to this statement, likely because the overwhelmingly positive response created a ceiling effect.

In conclusion, positive peer influence on student perceptions of academic honesty at Woodstock School was explored as a possible benefit of Research Camp. Survey data indicated that students who were mentored by peers came away with a stronger belief that academic integrity is an important norm among Woodstock students than did those who were mentored by teachers. This could, in theory, indicate a bolstering of the coordination effect among students mentored by their peers, inasmuch it strengthened their perception that academic dishonesty risks high social costs at Woodstock.

References

Arthur, W. B. (1988). 1988], Self-reinforcing mechanisms in economics. *The Economy as an Evolving Complex System (PW Anderson, KJ Arrow, and D. Pines eds.), Addison-Wesley*, 10-31.

Battiston, P., Gamba, S., Rizzolli, M., & Rotondi, V. (2021). Lies have long legs cheating, peer scrutiny and loyalty in teams. *Journal of Behavioral and Experimental Economics*, *94*, 101732.

Bretag, T. (2013). Challenges in addressing plagiarism in education. *PLoS medicine*, *10*(12), doi: e1001574.

Carrell, S.E., Malmstrom, F.V., & West, J.E. (2008). Peer effects in academic cheating. *Journal of Human Resources, 43*, 173-207. doi: 10.1353/jhr.2008.0013

Carroll, J. (2013). *A handbook for deterring plagiarism in higher education* (2nd ed.). Oxford Centre for Staff and Learning Development: Oxford Brookes University.

Charroin, L., Fortin, B., & Villeval, M. C. (2022). Peer effects, self-selection and dishonesty. *Journal of Economic Behavior & Organization*, *200*, 618-637.

Engler, J. N., Landau, J. D., & Epstein, M. (2008). Keeping up with the Joneses: Students' perceptions of academically dishonest behavior. *Teaching of Psychology*, *35*(2), 99-102.

Gino, F., Ayal, S., & Ariely, D. (2009). Contagion and differentiation in unethical behavior: The effect of one bad apple in the barrel. *Psychological Science, 20*, 393-398. doi: 10.1111/j.1467-9280.2009.02306.x

Heckler, N.C., Forde, D.R., & Bryan, C.H. (2013). Using writing assignment designs to mitigate plagiarism. *Teaching Sociology, 41*, 94-105. https://doi.org/10.1177/0092055X124614

Jordan, A.E. (2001). College student cheating: The role of motivation, perceived norms, attitudes, and knowledge of institutional policy. *Ethics & Behavior, 11*, 233-247. doi: 10.1207/S15327019EB1103_3

Nora, W.L.Y., & Zhang, K.C. (2010). Motives of cheating among secondary students: the role of self-efficacy and peer influence. *Asia Pacific Educational Review, 11*, 573-584. doi: 10.1007/s12564-010-9104-2

Rettinger, D.A., & Kramer, Y. (2009). Situational and personal causes of student cheating. *Research in Higher Education, 50*, 293-313. doi: 10.1007/s11162-008-9116-5

Shipley, L.J. (2009). Academic and professional dishonesty: Student views of cheating in the classroom and on the job. *Journalism & Mass Communication Educator, 64*, 39-53. doi: 10.1177/107769580906400104

Tsai, C. (2012). Peer effects on academic cheating among high school students in Taiwan. *Asia Pacific Educational Review, 13,* 147-155. doi: 10.1007/s12564-011-9179-4

Walker, R.E., Wiemeler, G.E., Procyk, M.R., & Knake, W.P. (1966). The contagion of cheating. *Psychology in the Schools, 3*, 359-360. doi: 10.1002/1520-6807(196610)3:4<359::AIDPITS2310030412>3.0.CO;2-W

General Processes and Specific Challenges to build a multi-institutional Research Integrity Office in India

Sabuj Bhattacharyya[1], Biswa B Mahapatra[2], Dasaradhi Palakodeti[1], Raj Ladher[2], Sanjay P Sane[2] & Arvind Ramanathan[1]

[1]Institute for Stem Cell Science and Regenerative Medicine (DBT-inStem), Bangalore, India
[2]National Centre for Biological Sciences (NCBS-TIFR), Bangalore, India

Academic integrity is at the core of good research practice, helping to create and sustain the public's trust in scientific research. While the challenges in academic integrity, particularly scientific misconduct (data falsification, data manipulation, and plagiarism) are global, there are factors which indicate idiosyncratic nature in frequency and magnitudes of research misconduct across geographical space[1,2]. The need to maintain high standards of research ethics and integrity has led to the formation of dedicated units or offices that ensure best practices in research. These "Office of Research Integrity (ORI)" or "Research Integrity Office (RIO)" are commonly found across many developed countries in the global north, however, they are scarce in the developing countries of the global south (e.g., India).

India is committed to upholding scientific temperament as a fundamental duty of every citizen, as highlighted in Article 51A (h) of the Indian constitution[3], and aspires to contribute significantly to global scientific advancement. It also sees science as a way to meet its various sustainable development goals including the provision of quality education to all. Many government agencies such as University Grant Commission (UGC)[4,5], and Indian Council for Medical Research (ICMR)[6] have formulated detailed policy documents to address challenges in academic integrity. However, the oversight mechanisms to ensure academic integrity and compliances vary significantly across different organizations, leading to implementation challenges. Moreover, the specific challenges faced by Indian academics are not well documented. Demir (2018)[7] has reported a high number of publications in predatory journals by scientists from developing countries including India. Additionally, India has also reported having comparatively high publication retractions (7.5 retractions per 10,000 articles)[2] in recent years. Thus, the lack of dedicated research integrity offices not only hampers effective policy implementation and interventions but may also result in increased incidents of research misconduct (both intentional and unintentional) or lapses in regulatory compliance. Therefore, it is essential to establish dedicated research ethics and integrity offices in the Indian academic ecosystem.

The Bangalore Life Science Cluster (BLiSC) consists of multiple institutes, each with different reporting structures. Two of them, the Institute for Stem Cell Science and Regenerative Medicine (DBT-inStem) and National Centre for Biological Sciences (NCBS-TIFR) in Bangalore, India are known for cutting-edge, internationally recognised, research in biological sciences. They share a common campus, and research facilities, with cross-campus collaborations between faculties, scientists and students. To meet both reporting requirements, facilitate training, and meet the requirements from government agencies to provide a focused course on research and publication ethics, BLiSC established India's first dedicated RIO. The office is primarily working with three verticals, *viz.,* to formulate policies and protocols for using tools for academic integrity (e.g., text and image integrity) to help in upholding the academic integrity of research activities at the institutes, to create process and space for publication data archiving to improve the transparency and reproducibility of research conducted at the institutes and finally, to conduct capacity building and training programs for all stakeholders (e.g., doctoral students, project personnel, research associates, trainees, and visitors). The office also aims to

serve as a liaison between the host institute and various government agencies regarding research ethics and integrity issues. During the presentation, we will discuss the process of setting up the RIO (e.g., the formation of a multi-institutional faculty advisory committee to closely supervise the overall functions of the office and provides advice, and suggestions as required) as well as various measures to improve stakeholder engagement including the design and execution of training programs, selection of IT tools to ensure text and image integrity and their implementation plan (e.g., individual as well as group meetings with stakeholders to discuss draft policies), publication data archiving process, and management. The presentation will also provide information about possible measures to build a larger network (e.g., use of the online platform to connect with academic integrity professionals from Europe, Australia, the UK and the USA) that identifies and shares best practices in research ethics and integrity. Furthermore, we will also discuss specific challenges we have faced in and during the set-up of the RIO, and measures that were proven effective to tackle them. We hope our effort to build a multi-institute research ethics and integrity office (RIO) could serve as a best practice example of mutual cooperation, and optimised utilization of limited resources in the field of academic integrity.

References

[1]Ana, J., Koehlmoos, T., Smith, R., & Yan, L. L. (2013). Research misconduct in low-and middle-income countries. PLoS medicine, 10(3), e1001315.

[2] Oransky, I. (2018). Volunteer watchdogs pushed a small country up the rankings. Science. 362(6413), 395.

[3]Raza, G. (2018). Scientific temper and cultural authority of science in India. In The Cultural Authority of Science (pp. 32-43). Routledge.

[4] University Grants Commission (2021).Academic Integrity and Research Quality. University Grants Commission: New Delhi, India.

[5] Patwardhan, B., & Thakur, A. (2019). UGC-CARE initiative to promote research quality, integrity and publication ethics. Current Science, 117(6), 918-919.

[6] Indian Council For Medical Research (2019). ICMR Policy on Research Ethics and Publication Ethics. Indian Council For Medical Research: New Delhi, India.

[7]Demir, S. B. (2018). Predatory journals: Who publishes in them and why?. Journal of Informetrics, 12(4), 1296-1311.

PUBLICATION ETHICS MODULE: CO-AUTHORSHIP AND CONTRIBUTORSHIP IN RESEARCH, UNIVERSITY-BUSINESS COLLABORATION, AND IN CITIZEN SCIENCE

Sonja Bjelobaba & William Bülow O'Nils,
Uppsala University, Sweden

Communalism, the first of Robert Merton's four norms of good scientific research (other three being universalism, disinterestedness, and organized scepticism) oblige scientists to publish their findings as the research community and scientists have the right to be informed of the results of research (Merton, 1942, p. 273). Publication of research results is thus a duty of researchers as trustworthy and transparent research communication disseminates the scientific knowledge, allows for scrutiny, maintains public trust in scientific community, and promotes the responsible use of research fundings.

Therefore, it is of utmost importance that graduate students and early career researchers gain good knowledge on how ethically to publish their findings. Commonly, research findings are published in research journals in form of papers. More often than not, research is a collective endeavour where several researchers have contributed to the final product. Therefore, an important part of publication ethics concerns the appropriate grounds for giving academic criteria to those involved in research through co-authorship and contributorship, e.g. the guidelines published by the International Committee of Medical Journal Editors (ICMJE, 2016). However, as publishing in high-impact journals is the incentive for the promotion in academia (Paulus et al, 2015), there are frequent authorship disputes and disagreements (Smith et al., 2020) as well as different types of the violations of the authorship criteria (Helgesson et al., 2018).

The Erasmus+ Strategic Partnerships project "Bridging Integrity in Higher Education, Business and Society" (Bridge, 2020-1-SE01-KA203-077973) seeks to create a bridge between academic sphere, business and society in order to reach a broader understanding of interrelated aspects of integrity between these fields. The target group of the project are master and doctoral students, as well as their supervisors. One of the project outputs is the creation of open educational resources in the form of customized modules that can be adapted to different disciplines or subject areas, and link academic integrity to integrity in research, business, and society.

One of the modules created in the Bridge project focuses on authorship ethics. The learning outcomes of the module include the ability to recognize the appropriate grounds for giving academic credit to those involved in research, as well as the importance of defining the various roles of those involved in research collaboration in advance in order to avoid potential disputes and disagreements. As many researchers participate in university-business collaborations or in citizen science projects, the module also highlights the challenges associated with citizen science and university-business collaborations when it comes to academic credit and how to publish one's results.

The module is currently under development and by the time of the conference it will downloadable under the cc licence from the Bridge website. The module includes short pre-recorded video lectures that introduce different aspects of publication ethics related to the authorship practices, such as guidelines for authorship in co-research, contributorship, and best practices for handling authorship disputes. Each video is followed by a short quiz. In addition, the module includes gamified material such as a role-playing game on authorship disputes in university-business collaboration and a vignette on the authorship in citizen science. Teachers who wish to use this module with their students are free to include all parts of the module, or only parts of it, using, for instance, just some of the lectures, or the lectures and the quiz without including the role-play or the vignettes.

In this presentation, the rationale behind the module will be discussed, as well as the ways on how to use it in educational settings or as a stand-alone educational material.

References

Helgesson, G., Juth, N., Schneider, J., Lövtrup, M., & Lynøe, N. (2018). Misuse of Coauthorship in Medical Theses in Sweden. *Journal of Empirical Research on Human Research Ethics*, *13*(4), 402–411. https://doi.org/10.1177/1556264618784206

ICMJE. (2016). Recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals. Retrieved from http://www.icmje.org/index.html

Merton, R. K. (1942). The Normative Structure of Science. In N. Storer (Ed.) *The sociology of science: Theoretical and empirical investigations* (pp. 267–278). Chicago: The University of Chicago Press.

Paulus, F. M., Rademacher, L., Schäfer, T. A. J., Müller-Pinzler, L., & Krach, S. (2015). Journal impact factor shapes scientists' reward signal in the prospect of publication. *PloS One* 10(11): e0142537. https://doi.org/10.1371/journal.pone.0142537

Smith, E., Williams-Jones, B., Master, Z., Larivière, V., Sugimoto, C. R., Paul-Hus, A., Shi, M., & Resnik, D. B. (2020). Misconduct and Misbehavior Related to Authorship Disagreements in Collaborative Science. *Science and Engineering Ethics*, 26(4), 1967–1993. https://doi.org/10.1007/s11948-019-00112-4

JUST THE TIP OF THE ICEBERG! FAKE DEGREES EXAMINED THROUGH TOPIC MODELLING AND INTERNET PROTOCOLS

Jamie J. Carmichael[1] & Sarah E Eaton[2]
[1]Carleton University, Ottawa, Canada
[2]University of Calgary, Calgary, Canada

This presentation will outline the findings of our book chapter, "Security Risks, Fake Degrees and Other Fraud: A Topic Modelling Approach" (Carmichael & Eaton, 2023 as cited in Eaton, Carmichael & Pethrick, 2023). We created a topic model to understand better the threat of websites that sell fake degrees and credentials. The availability of current academic literature on fake degrees is sparse, with research prominently focusing on blockchain technology (Carmichael & Eaton, 2023). Our analysis also lead to the investigation of a secondary data point. We recorded and tracked the IP addresses of the targeted websites over time to determine if the connection was static versus dynamic, as well as geolocation. In summary, our work identified 23 risks, which we organized into recommendations for those in higher education within the following areas: security professionals, senior leadership, and researchers for future study.

Method

Topic modeling is a machine learning technique that has been used within the realm of security in various capacities. However, its usage within higher education and academic integrity is somewhat limited (Carmichael & Eaton, 2023). The value of this technique is that it allows you to synthesize a large amount of data that would be time-consuming to do through traditional, manual methods. Topic modeling generates keywords from a corpus of data and categorizes them into a list of topics using a latent Dirichlet allocation algorithm (Blei, Ng & Jordan, 2003; Blei, 2012, as cited in Bailetti & Tanev, 2020). In our study, the corpus was fake degree websites. Interpreting the keywords by returning to the data source, and examining the words that replicate, are strategies to extract meaningful insights (Weiss, 2021).

Online hacker forums have been studied using this method (Samtani, Chinn & Chen 2015), and blacklists have been created with the knowledge learned (Swe & Myo, 2018). Outside of web-mining, topic modeling can be used to pinpoint network behavior patterns, which system administrators can use in anomaly detection systems (Adilova et al., 2019). Despite the prevalence of this technique within the security sector, it is starting to be used within higher education. Dadkhad, Rahimnia, and Oermann (2021) developed a dashboard (https://drdadkhah.shinyapps.io/pedcheck/) to analyze the keywords from Reddit that were posted about predatory journals. Topic modeling allowed the researchers to isolate the traits of such journals (Dadkhad et al., 2021). Likewise, Lagopoulos, Tsoumakas, and Papadopoulos (2017) used both topic modeling and server logs to determine if bots generated online academic publishing.

Results

Similar to the evidence found in the academic literature, topic modeling proved to be an effective method to examine the threat of fake degrees. We scraped text from 30 websites selling fakes degrees, that involved digging down to not only the main web pages, but extracting text from linked pages, which totaled 28,230 unique layers. These linked pages could include social media, for example. We built the topic model using a customized tool, Topic Model Explorer (https://github.com/michaelweiss/topic-model-explorer). This tool runs four models concurrently so that reoccurring words can be analyzed. Words that reoccur indicate stability and replicability with the model (Bailetti & Tanev, 2020; Weiss, 2021). Nine topics were found and included results that could be predicted, while others were surprising. For instance, many keywords referred to the product itself ("high school diploma"), specific

attributes ("seal" or "hologram"),and promises of the service ("professional"). Reasons to purchase were also expected and ranged from "education," "job," to "tuition". Within this analysis, what was surprising were the product extensions or add-ons. These included grade point average, grades, graduation list, student identification that surpassed campus or library cards, but also involved government-issued ID. Some keywords asked more questions than provided answers ("policy," "security," and "family and friends"). Policy, in this case, could refer to a guarantee upon purchase, and security might allude to the confidentiality of the buyer's data. Regarding the latter case, one website posted a buyer's name due to lack of payment, and another allowed potential buyers to use social media to log in. If the buyer chooses this sign-on method, the website can access all their published content, from their profile to friends. Social media was not only an access vehicle, but promotion, and sites often followed universities or education leaders. Family and friends were also noted as a grey area, and with interpretation, could allude to impressing one's social circle or even marketing the service itself. Lastly, countries and cities were indicated, and their appearance could reflect the scraped degree samples within the corpus. However, this curiosity about location lead to the collection of supplemental data.

The second data point explored internet protocols, which is a string of numbers that permits us to map the geographic location of the website and whether the connection is static or dynamic. This latter classification is relevant as businesses typically use a static connection, which does not change, to offer stable services to their end user. At varying intervals, two website tools were used to collect this data: Open Admin Tools (https://ip.openadmintools.com/en/) and WhatIsMyIPAddress.com (https://whatismyipaddress.com/). The findings revealed that 43% of the IP addresses were dynamic, and the United States dominated as a country of origin. Our chapter argued that services would want their customers to have the best experience. Therefore, they will host their websites closest to where their users are located. The possibility of a web server farm was also considered. For this scenario, it is feasible that the last three digits in the number string could change without any nefarious intentions; however, it is more suspicious if the first few digits change. Of the 13 IP addresses that changed, 12 changed the digits within our data sample at the beginning.

Conclusion

While this research focuses on identifying risks on the surface web regarding fake degrees, others have investigated the Dark Web, which is accessible only through specific system protocols. Kaur and Randhawa (2020) examined this digital terrain and found the selling of personal data, fake documents, and hackers for hire with mentions of breaking into university systems to alter records (p. 2156). Our research has looked at the tip of the iceberg, but much work is to be done hidden beneath the surface.

References

Adilova, L., Natious, L., Chen, S., Thonnard, O, & Kamp, M. (2019). System misuse detection via informed behavior clustering and modeling. In DSN-W, 2019. https://doi.org/10.48550/arXiv.1907.00874.

Bailetti, T. & Tanev, S. (2020). Examining the relationship between value propositions and scaling value for new companies. *Technology Innovation Management Review, 10*(2),5-13. http://doi.org/10.22215/timreview/1324.

Blei, D. (2012). Probabilistic topic models. *Communications of the ACM*, 55(4), 77–84. https://doi.org/10.1145/2133806.2133826.

Blei, D., Ng, A., & Jordan, M. (2003). Latent Dirichlet Allocation. *Journal of Machine Learning Research, 3(2003),* 993–1022.

Carmichael, J. J. & Eaton, S. E. (2023). Security risks, fake degrees, and other fraud: A topic modelling approach. In Eaton, S. E., Carmichael, J. J., & Pethrick, H. (Eds.) *Fake degrees and credential fraud in higher education*. Springer.

Dadkhah, M., Rahimnia, F. & Oermann, M. H. (2021). PedCheck: A dashboard for analysing

social media posts about predatory journals. *Serials Review, 47(3-4)*, 224-230. https://doi.org/10.1080/00987913.2022.2046459.
Eaton, S. E., Carmichael, J., & Pethrick, H. (Eds.). (2023). *Fake degrees and credential fraud in higher education*. Springer.
Kaur, S., & Randhawa, S. (2020). Dark web: A web of crimes. *Wireless Personal Communications, 112*, 2131-2158. https://doi.org/10.1007/s11277-020-07143-2.
Lagopoulos, A., Tsoumakas, G., & Papadopoulos, G. (2017). Web robot detection in academic publishing. arXiv preprint arXiv:1711.05098. https://doi.org/10.48550/arXiv.1711.05098.
Open Admin Tools. (n.d.). Accessed: March and June 2022, https://ip.openadmintools.com/en/.
Pedcheck. (n.d.) Accessed November 2022, https://drdadkhah.shinyapps.io/pedcheck/.
Samtani, S., Chinn, R. & Chen, H. (2015). Exploring Hacker Assets in Underground Forums. In *Intelligence and Security Informatics (ISI), 2015 IEEE International Conference* (pp.) 31 36. IEEE, 2015.
Swe, M., M. & Nyein Myo, N. (2018). Fake accounts detection on Twitter using blacklist. In *Proceedings IEEE/ACIS 17th International Conference on Computer and Information Science (ICIS)*, Jun. 2018, 562–566. http://dx.doi.org/10.1109/ICIS.2018.8466499.

Topic Model Explorer. (n.d.) Accessed: March-April 2021, https://github.com/michaelweiss/topic-model-explorer.
Weiss, M. (2021). Patterns for topic modeling. In *Proceedings of the Pattern Languages of Programs Conference* (PLoP), 2021.
WhatIsMyIPAddress.com. (n.d.). Accessed: March and June 2022, https://whatismyipaddress.com/.

Testing of AI Detection Tools

Tomáš Foltýnek[1], [2]Alla Anohina-Naumeca, [3]Sonja Bjelobaba, [4]Jean Guerrero-Dib, [1]Petr Šigut, [5]Olumide Popoola, [6]Lorna Waddington, [7]Július Kravjar & [8]Debora Weber-Wulff

[1] Masaryk University, Czechia
[2]Riga Technical University, Latvia
[3]Uppsala University, Sweden.
[4]Universidad de Monterrey, Mexico.
[5]Queen Mary's University, UK
[6]University of Leeds, UK
[7]ENAI, Czechia
[8]University of Applied Sciences HTW Berlin, Germany

Recent advancements in artificial intelligence (AI), namely in the area of generative pre-trained large language models, have led to publicly available online tools that can generate content which is difficult to distinguish from human-written content and can be used to solve assessment tasks at higher education institutions (HEIs). Despite the fact that unauthorized content generation, such as contract cheating has been a well-researched form of student cheating for almost two decades now, HEIs did not expect such radical improvements and were not ready for an automated tool that makes unauthorized content generation so easily accessible by the students. The availability of the tools based on GPT-3 and its successors raised many concerns, and the publication of ChatGPT forced HEIs to action. Currently, this is probably the most discussed AI-related topic around the world (Weale, 2023; Wingard, 2023). Some schools prohibited the use of ChatGPT (MacGregor, 2023; Wood 2023), and some even blocked access from their university networks (Davis 2023). Some conferences explicitly prohibited AI-generated content in conference submissions, including machine learning conferences (Wodecki, 2023). Restrictions of AI-generated content have naturally led to the desire for simple detection tools. Many free online tools are already available that claim to be able to detect AI-generated content.

In this presentation, we will look at the efficiency of these tools in detecting such content in various scenarios. In all scenarios, we used ChatGPT to generate the content, as it is now the most popular tool with the largest media attention. There will be a testing set containing several categories of documents, all of them in English:

- human-written
- human-written in the author's native language with a subsequent machine translation to English
- ChatGPT-generated
- ChatGPT-generated with subsequent manual edits
- ChatGPT-generated with subsequent machine paraphrase

A list of detection tools was prepared using social media and Google search. We investigated 18 tools, out of which 6 were excluded (2 were not available, 2 were not online applications but Chrome extensions - thus out of the scope, 1 required payment, and 1 did not produce any quantifiable result). Therefore, we tested these 12 tools:[Text Wrapping Break]

- Compilatio (https://ai-detector.compilatio.net/)
- Crossplag (https://crossplag.com/ai-content-detector/)
- OpenAI Text Classifier (https://platform.openai.com/ai-text-classifier)
- GPT Zero (https://gptzero.me/)
- Zero GPT (https://www.zerogpt.com/)
- GPT-2 Output Detector Demo (https://openai-openai-detector.hf.space/)
- Writer (https://writer.com/ai-content-detector/)
- DetectGPT (https://detectgpt.ericmitchell.ai/)
- Writeful GPT Detector (https://x.writefull.com/gpt-detector)
- Content at Scale (https://contentatscale.ai/ai-content-detector/)
- Check For AI (https://checkforai.com)
- Go Winston (https://gowinston.ai)

The presentation will summarise the general functionality of such tools, examine the terms and conditions of these tools, and consider legal issues related to uploading student content to these tools. And, most importantly, the accuracy of output provided by these tools will be assessed. When possible, we also take into account the confidence level presented by the tools.

The results of the test will show how much of truly AI-generated content was correctly classified (recall), and how much of the content classified as AI-generated was really generated by AI (precision). The precision of the detector is particularly important because human-written content that is classified as AI-generated would lead to false accusations of student misconduct. As the tools don't provide exact binary classification, we evaluate the results using the following categories: For human-written text, we distinguish True negative, Partially true negative, Unclear, Partially false positive, and False positive. For AI-generated text, we distinguish False negative, Partially false negative, Unclear, Partially true positive, and True positive.

Even though unauthorised and undeclared submission of AI-generated content by a student is a form of academic misconduct, the detection of AI-generated text is different from plagiarism detection. The most important difference is the lack of evidence. Whereas a text matching tool can provide a similarity report, which allows for direct comparison of a suspicious document with a source document, AI detectors provide just the output of another AI, without any possibility of verification, evidence or defence. This is certainly an issue that has to be taken into account in institutional policies but is beyond the scope of our presentation.

The overall results of the testing are not available at the time of writing this abstract. Some of the tools provide just a classification without further explanation or details. It is unclear how an educator should deal with a message like "This document was likely written by AI". Some tools provide statistical information to justify the classification, and some tools highlight the text that is likely machine-generated. One tool, GLTR (http://gltr.io/) does not provide any classification, so we decided to exclude it from testing. Nonetheless, it highlights the words (tokens) based on how commonly they appear in a given context. Interpretation of the output is up to the educator, but we find the visualisation of this information very useful.

Quantitative results of the precision, recall, and accuracy of the tools, as well as on the general detectability of AI-generated content with respect to particular obfuscation scenarios will be presented at the conference.

References

Davis, A. (2023, 30 January). ChatGPT banned in WA public schools in time for start of school year. *abc.net*, accessed from https://www.abc.net.au/news/2023-01-30/chatgpt-to-be-banned-from-wa-public-schools-amid-cheating-fears/101905616 on 2023-02-03

MacGregor, K. (2023, 3 February). Sciences Po bans ChatGPT amid HE quality, integrity fears. University World News, accessed from https://www.universityworldnews.com/post.php?story=20230203074335557 on 2023-02-06

Weale, S. (2023, 13 January). Lecturers urged to review assessments in UK amid concerns over new AI tool. The Guardian., accessed from https://www.theguardian.com/technology/2023/jan/13/end-of-the-essay-uk-lecturers-assessments-chatgpt-concerns-ai on 2023-02-06

Wingard, J. (2023, 10 January). ChatGPT: A Threat To Higher Education? Forbes, accessed from https://www.forbes.com/sites/jasonwingard/2023/01/10/chatgpt-a-threat-to-higher-education/?sh=54673e6c1e76 on 2023-02-06

Wodecki, B. (2023, 6 January). ChatGPT and AI Text Generator Tools Banned by ML Event. AI Business, accessed from https://aibusiness.com/nlp/chatgpt-and-ai-

text-generator-tools-banned-by-ml-event on 2023-02-06
Wood, P. (2023, 28 February). Oxford and Cambridge ban ChatGPT over plagiarism fears but other universities choose to embrace AI bot, accessed from https://inews.co.uk/news/oxford-cambridge-ban-chatgpt-plagiarism-universities-2178391 on 2023-03-10

LECTURER, ENGLISH LANGUAGE TUTOR, AND STUDENT VIEWS ON THE EDUCATIVE ROLE OF PROOFREADING

Nigel Harwood

The University of Sheffield, UK

It is common in UK universities for student writers to have their work 'proofread' by a third party before submission for assessment. But to what extent is the process and experience of having one's work proofread educative? This is a pertinent question for teaching and learning policymakers concerned with academic integrity: if student writers quickly submit their work to be assessed after the proofreader's intervention, not even bothering to look at the changes made and the problematic aspects of the text highlighted by the proofreader, proofreading can be said to be uneducative, and indeed unethical. According to this anti-educative view, proofreading merely serves to mask writers' inadequate linguistic and rhetorical skills and deceives the assessor into thinking the student is capable of producing better prose than they would be capable of producing on their own (see Baty, 2006; McKie, 2019; Scurr, 2006). If, on the other hand, writers carefully study the proofreader's interventions and suggestions for improvement, the experience can be seen as more pedagogically formative and part of the overall educative experience of studying at university. Furthermore, proofreaders like Burrough-Boenisch (2013) describe how the educative potential of interventions can be maximized by accompanying corrections or suggested rewrites with explanations or with references to grammar websites for self-study. According to this educative view of proofreading, then, the proofreader can serve as a teacher (see Corcoran et al., 2018; Harwood et al., 2012): in the same way that an English language writing centre tutor can provide students with input on grammar, vocabulary, and academic writing conventions, a proofreader can do the same:

> 'Proofreading as part of a collaborative process can reveal gaps and weaknesses in the writer's grammar and syntax, and offer "teachable moments" and learning opportunities that provide valuable individualised feedback.' (McNally & Kooyman, 2017, p. A-149).

Determining stakeholders' views on the educative potential of proofreading, then, should help policymakers identify the most pedagogically beneficial forms of intervention which are to be permitted, even encouraged; and to identify which uneducative forms should be debarred. Lecturers, English language tutors, and students should all be concerned with the (un)educative potential of proofreading: lecturers may have concerns as to the extent to which proofreaders teach writers or merely fix writers' texts for them, and may worry about the degree to which proofreaders can boost the marks writers are awarded. English language teachers may work as freelance proofreaders as part of or outside of their institutional role (e.g., in a university writing centre or as a freelance proofreader), and will likely have views on how to maximize the educative value of interventions. And it is important to ascertain from students the extent to which those who have sought out proofreading have found it to be (un)educative. The research described in this presentation therefore investigated the following research questions:

To what extent do university content lecturers, English language tutors, and students feel the proofreading of student writing is educative? Why/Why not?

Respondents were recruited via the research volunteer list of a research-intensive UK university, as well as on the British Association of Lecturers of English for Academic Purposes (BALEAP) mailing list. Data was collected from

all three stakeholder groups via 122 questionnaires and 87 interviews.

Drawing upon the proofreader intervention taxonomies from Harwood (2018), Kruger and Bevan-Dye (2010), and Mossop (2007), the questionnaire asked respondents for their views on 20 different intervention types. Some interventions could be seen as potentially educative, such as when the proofreader alerted the writer to rhetorical academic writing conventions (e.g., the need to support claims with sources or with evidence; or the need to elaborate upon statements for the sake of clarity), while other interventions could be seen as far less educative, such as when the proofreader engaged in substantial, direct rewriting of the student's text, meaning that the writer could simply accept these changes without much reflection upon the shortcomings of the original form of their text. A semi-structured follow-up interview of about 50 minutes enabled interviewees to explain their views on the (un)educative potential of proofreading in more detail. Interviewees were first shown their completed questionnaires at the start of the interview and invited to elaborate upon the reasons they had judged each intervention to be ethically (un)acceptable, which enabled their thoughts about (un)educative proofreading to surface. Respondents later commented on various arguments for and against proofreading which were based upon those found in the literature and in the higher education press. As far as the discussion of (un)educative proofreading was concerned, the following prompt was particularly relevant, featuring a quote by McNally and Kooyman (2017, p. A-149):
To what extent do you agree or disagree with the following statement?
"Second language speakers of English need writing support and proofreaders can provide this support. Proofreaders can help make writers aware of gaps and weaknesses in their grammar and syntax. Proofreading can therefore be educative, offering student writers individualised learning opportunities."

Views were split as to the educative potential of proofreading. On the one hand, it was pointed out how proofreaders could direct writers towards resources like the Manchester Phrasebank or online grammar resources to enhance the writers' knowledge of rhetorically useful expressions or to raise awareness of their linguistic deficiencies. Such signposting could provide writers with useful points of reference for self-study. Some students also claimed to have had their awareness raised of particular problematic areas in their writing as a result of proofreading. In contrast, those who were dubious of the educative potential of proofreading claimed that writers were not looking for an educative experience from the proofreader; they simply wanted their writing to be corrected. It was said that these writers would often seek out proofreaders very close to a submission deadline, meaning that once their amended texts were returned, they immediately submitted them for assessment, learning very little or nothing from the experience. These contrasting perspectives underscore the difficulty for policymakers of identifying an educatively-focused proofreading policy which would be likely to attract widespread approval across the academy.

Having presented the motivation for the study, then described its design and principal results, the presentation concludes by exploring whether and to what extent an educative proofreading could be embedded into university support services in spite of stakeholders' contrasting views.

References

Baty, P. (2006). Fluency can be all yours…for a small fee. *Times Higher Education Supplement*, 7th April.
Burrough-Boenisch, J. (2013). Didactic editing: Bringing novice writers into the arena of scholarly publishing. In V. Matarese (Ed.), Supporting research writing: roles and challenges in multilingual settings. Chandos Publishing, pp.207-220.
Corcoran, J., Gagné, A., and McIntosh, M. (2018). A conversation about "editing" plurilingual scholars' thesis writing. *Canadian*

Journal for Studies in Discourse and Writing/Rédactologie, 28, pp. 1-25.
Harwood, N. (2018). What do proofreaders of student writing do to a master's essay? Differing interventions, worrying findings. *Written Communication*, 35, pp. 474-530.
Harwood, N., Austin, L., and Macaulay, R. (2012). Cleaner, helper, teacher? The role of proofreaders of student writing. *Studies in Higher Education*, 37, pp. 569-584.
Kruger, H. and Bevan-Dye, A. (2010). Guidelines for the editing of dissertations and theses: A survey of editors' perceptions. *Southern African Linguistics and Applied Language Studies*, 28, pp. 153-169.
McKie, A. (2019). When does proofreading become plagiarism? *Times Higher Education* 12th June.
McNally, D. and Kooyman, B. (2017). Drawing the line: Views from academic staff and skills advisors on acceptable proofreading with low proficiency writers. J*ournal of Academic Language & Learning*, 11, pp. A145-A158.
Mossop, B. (2007). Revising and editing for translators (2nd ed.). St. Jerome.
Scurr, R. (2006). It is not enough to read an essay and mark it; one must also guess if a student has purchased professional help. *Times Higher Education Supplement*, 15th December.

TEACHING SCIENTIFIC INTEGRITY TO PHD STUDENTS: ONLINE COURSES VERSUS FACE TO FACE LECTURES

Nataliya Sira & Dominik Groß

Institute of History, Theory and Ethics in Medicine, RWTH Aachen University, Aachen, Germany

People learn and formulate their sense of ethical behavior many years before they get positions of organizational responsibility (Meisel, Fearon: 2006), which means that the teaching process has a huge impact at an early stage. "Learning begins with experience" (Argote, Miron-Spektor: 2011), and it is evident that ethics teaching is helpful to induce students awareness to real-life ethical issues. Specifically, teaching techniques that actively engage students is particularly effective in preparing students to promptly react should they encounter instances of ethical misconduct throughout their professional life (Antes et al.: 2009). Accordingly, more and more researchers are no longer asking whether to teach research integrity, but how to teach it. (Sponholz: 2000, Sira et al.: 2022). Whereas various European research institutions underline the importance of research integrity training (ALLEA: 2017, Forsberg et al.: 2018, Godecharle, Nemery, Diericks: 2013), the official indications on how to carry out the training are not uniform and are limited (Pizzolato, Dierickx: 2021).
The first attempt to provide the standard to the teaching scientific integrity in Germany took place in 2009 when the first curriculum for teaching good scientific practice (GSP) was developed (Sponholz: 2009). Based on this curriculum, a lesson concept for a two-days' workshop targeting doctoral candidates was conceptualized. (Gommel et al.: 2021). The newest curriculum for teaching courses in GSP has been published as an extended and revised version in 2019 (Sponholz: 2019) and addresses the individuals involved in the development of the GSP courses in Germany. The curriculum is an useful tool for the teaching organization which can be adapted to the necessities of the course offering institution and course attendees.

At the RWTH Aachen University, the completion of a course to ensure good scientific practice is a prerequisite for registration of the master's thesis and is mandatory for admission to the doctoral examination. Therefore, RWTH Aachen University offers the online course "Scientific Integrity" to all master's and doctorate students, as well as to the Postdocs and other employees. The course consists of six modules and covers the following topics: scientific integrity and its safeguarding, scientific misconduct, social responsibility and research ethics, diversity in science, research data and conflict of interest. Additionally, more courses and various formats can be found at the RWTH Center for Young Academics: the courses are typically offered in German and in English and may be taken online or in presence.

We present the RWTH Aachen University experience where both online and in presence course formats are available. Considering the necessities of the higher education institutions, the study defines dis-/advantages of the online format and relates to the feedback of the master's students and doctorate candidates that have followed an asynchronous online course "Scientific Integrity" at RWTH Aachen University. Our outcomes contribute to empirical research on scientific integrity teaching, in particular during the conference the perspective of those who receive the course will be presented. Based on the feedback on the online-course "Scientific Integrity", course-attendees are divided in their opinions on the digital format: however the possibility of taking the course online is very practical, an exchange of ideas is lacking.

Reference

ALLEA All European Academies. (2017). The European Code of Conduct for Research Integrity. Revised Edition 5. Berlin: Berlin-Brandenburg Academy of Sciences and Humanities. https://www.allea.org/wp-

content/uploads/2017/05/ALLEA-European-Code-of-Conduct-for-Research-Integrity-2017.pdf
Antes, A. L., Murphy, S. T., Waples, E. P., Mumford, M. D., Brown, R. P., Connelly, S., & Devenport, L. D. (2009). A meta-analysis of ethics instruction effectiveness in the sciences. *Ethics & Behavior*, *19*(5), 379-402.
Argote, L., Miron-Spektor, E. (2011). Organizational Learning: From Experience to Knowledge. Organization Science 22(5):1123-1137. https://doi.org/10.1287/orsc.1100.0621
Forsberg, E. M., Anthun, F. O., Bailey, S., Birchley, G., Bout, H., Casonato, C., ... & Zöller, M. (2018). Working with research integrity—Guidance for research performing organisations: The Bonn PRINTEGER statement. Science and engineering ethics, 24, 1023-1034.
Godecharle, S., Nemery, B., & Dierickx, K. (2013). Guidance on research integrity: no union in Europe. The Lancet, 381(9872), 1097-1098.
Gommel, M., Verse, J., Nolte, H., Sponholz, G. (2021), Gute wissenschaftliche Praxis: Wissen und Nichtwissen von Nachwuchsforschenden. *Bioethica Forum,* 14/1, 52.65. https://doi.org/10.24894/BF.2021.14005
Harkrider, L. N., Thiel, C. E., Bagdasarov, Z., Mumford, M. D., Johnson, J. F., Connelly, S., & Devenport, L. D. (2012). Improving case-based ethics training with codes of conduct and forecasting content. *Ethics & Behavior*, *22*(4), 258-280. https://doi.org/10.1080/10508422.2012.661311
Kretser, A., Murphy, D., Bertuzzi, S., Abraham, T., Allison, D. B., Boor, K. J., Dwyer, J., Grantham, A., Harris, L. J., Hollander, R., Jacobs-Young, C., Rovito, S., Vafiadis, D., Woteki, C., Wyndham, J., & Yada, R. (2019). Scientific Integrity Principles and Best Practices: Recommendations from a Scientific Integrity Consortium. Science and engineering ethics, 25(2), 327–355. https://doi.org/10.1007/s11948-019-00094-3
Meisel, S. I., & Fearon, D. S. (2006). "Choose the future wisely": Supporting better ethics through critical thinking. *Journal of Management Education*, *30*(1), 149-176. https://doi.org/10.1177/1052562905280833
Pizzolato, D., & Dierickx, K. (2021). Stakeholders' perspectives on research integrity training practices: a qualitative study. BMC Medical Ethics, 22(1), 67. https://doi.org/10.1186/s12910-021-00637-z
Sira, N., Decker, M., Kordtomeikel, F., Winkens, A., Leicht-Scholten, C., & Groß, D. (2022). Chore or desire? Students' response to online lessons in Scientific Integrity. Accountability in Research, 1-18. https://doi.org/10.1080/08989621.2022.2145956
Sponholz, G. (2000). "Teaching Scientific Integrity and Research Ethics." Forensic Science International 113 (1–3): 511–514. https://doi.org/10.1016/S0379-0738(00)00267-X
Sponholz, G. (2009). "Curriculum für Lehrveranstaltungen zur guten wissenschaftlichen Praxis in Naturwissenschaften und Medizin" https://ombudsman-fuer-die-wissenschaft.de/wp-content/uploads/2019/06/Curriculum_Gute_wissenschaftliche_Praxis_Sponholz.pdf
Sponholz, G. (2019). "Curriculum für Lehrveranstaltungen zur guten wissenschaftlichen Praxis." https://ombudsman-fuer-die-wissenschaft.de/2693/curriculum-fuer-lehrveranstaltungen-zur-gwp

Contract Cheating among Postgraduate Students and Staff of Public Universities in Ghana: An Exploratory Study

Ivy Kesewaa Nkrumahm, Lebbaeus Asamani, Isaac Buabeng, Kyeremeh Dabone-Tawiah, Daniel Miezah & Peter Arhin

University of Cape Coast, Ghana

Background

Academic Integrity remains an indispensable core characteristic of the educational enterprise. Starved of academic integrity, educational institutions will fail to honour the core purpose of their existence, which is to prepare students for lives as ethical and knowledge citizens and professionals. Currently, the quality and standards of higher education worldwide is besieged by the growing menace of contract cheating. Contract cheating "is a basic relationship between three actors; a student, their university, and a third party who completes assessments for the former to be submitted to the latter, but whose input is not permitted" (Draper & Newton, 2017, p.1).

Although not a 'new' phenomenon, the subject-matter of contract cheating attracts continuous attention among educators because it is arguably more fraudulent, and qualitatively varies from plagiarism, collusion, and many other fairly minor breaches (Walker & Townley, 2012), and has ramifications for students' learning outcomes, institutional reputation, professional practice, and public safety. The recent increase in online teaching and assessment has exacerbated contract cheating and expanded the types of such services (Hill et al., 2021). Of much concern is the burgeoning of marketing-savvy commercial suppliers who pursue students through online platforms and other advertising media about their 'academic sales'.

This research seeks to unearth common questions, struggles, and strategies to managing this multifaceted menace not only to academic integrity but also to professional practice and public safety. A comprehensive investigation into this developing threat to academic integrity from varied perspectives would be a catalyst for instigating relevant responses and solutions.

The specific research questions that the study attempts to answer are:

- What do key stakeholders (students, lecturers) perceive as contract cheating among university students?
- What is the prevalence of contract cheating from the perspective of university students and lecturers?

Methodology

Design and Procedure

The convergent mixed parallel design will be employed in this study. The quantitative aspect of the study will utilize questionnaire which will be distributed through both online portals and personal contacts. The qualitative data will be collected through one-on-one face to face, or electronic moderated interviews.

Participants

The target population of the study is the postgraduate students and lecturers of public universities in Ghana, with focus on those in the five "traditional" public universities in Ghana. The total enrolment figure of postgraduate students (Master's and Ph.D) of these universities currently stands at 33,761, comprising 20,919 males and 12,842 females (Source: MIS of the universities). Respondents for the quantitative phase of the study will be selected through multi-stage sampling procedure. The sample of the qualitative aspect will comprise of students and lecturers

of the selected universities. Key informants comprising the University Teachers Association (UTAG) executives, and executives of the student body will be contacted for one-on-one interviews. In addition, focus-group discussions will be conducted among students, lecturers and administrators. Theoretical sampling approach will be adopted and data saturation or redundancy will be the focus. Accordingly, perfect representation of the respondents will not be a focus, but selection will be purposefully done, focusing on key informants rather than randomly (Ezzy, 2002). Sampling and interview therefore will proceed until a point of data redundancy or data saturation is reached (Lincoln & Guba, 1985; Simon & Goes, 2012).

Instrumentation

An adapted questionnaire (European Network for Academic Integrity, 2019) will be used to collect the quantitative data. A semi-structured interview with prompts and follow-up questions for the different categories of respondents whenever necessary, will be used to collect the qualitative data.

Data Analysis Procedure

The analytical approach for the quantitative data will be mainly frequencies and percentages to describe the incidence and prevalence of contract cheating. The theoretical (deductive) thematic analysis (Patton, 1990) will be used to analyse the qualitative data. Braun and Clarke's (2008) six step thematic analysis will be used.

What will be Presented at the Conference?

This project is an exploratory study on academic integrity in Ghana. The study has been piloted at one university in Ghana. The researchers will present the results of the pilot study at the conference.

References

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3,* 77-101.

Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Draper, M. J., & Newton, P. M. (2017). A legal approach to tackling contract cheating? *International Journal for Educational Integrity, 13*(11), 11-17.

Ellen, S. (2014). *Slovin's Forumal Sampling Techniques. eHow.* Demand Media Inc. [Online] Available URL: http://www.ehow.com/way_5475547_slovins-formula-sampling-techniques.html.

European Network for Academic Integrity. Retrieved from https://www.academicintegrity.eu/wp/guidelines/ - 20-12-2022.

Ezzy, D. (2002). Qualitative analysis, practice and innovation. London: Routledge.

Gomez, M. J. (2013) Statistics for research and evaluation (with computer application). Trinity University of Asia Graduate School. [Online] Available URL: *http://marlongomez.weebly.com/uploads/6/2/7/9/6279666/_preliminaries.pdf*.

Hill, G., Mason, J., & Dunn, A. (2021). Contract cheating: An increasing challenge for global academic community arising from COVID-19. *Research and Practice in Technology Enhanced Learning, 16*(24), 1-20.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. London: Sage.

McLeod, S. A. (2019, August 03). *Likert scale*. Simply Psychology. www.simplypsychology.org/likert-scale.html

Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research 1*(1):48-76

T. (2001). Competitive advantage: Logical and philosophical considerations. *Strategic Management Journal, 22*(9), 875-888.

Walker, M., & Townley, C. (2012). Contract cheating: a new challenge for academic honesty. *Journal of Academic Ethics, 10*(1), 27-44.

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.

Adherence to the Principles of Academic Integrity: A Theoretical and Practical Approach

Eszter Benke & Andrea Szőke
Budapest Business School, Budapest.

In higher education, academic integrity, a commitment to the principles of honesty, respect, fairness, equal opportunities and transparency, is a fundamental expectation. Many researchers and practitioners have defined and conceptualised the notion (Bertram Gallant, 2017, 2018; Bretag, 2020; ICAI 2014; McCabe et al., 1999) and the growing body of research on academic integrity also confirms the relevance and importance of the topic (Bertram Gallant & Rettinger, 2022; Foltýnek & Dlabolová, 2020; Glendinning & Orim, 2022; Tatum, 2022). Just as the concept of culture can have different meanings for different communities, academic culture can also be interpreted differently by different academic communities. This is also true for academic integrity, an important element of academic culture. The accepted norms of academic culture should have the same meaning for all participants in the community. There appears to be an increasing need to define values explicitly in academic culture as this is essential for fostering an ethical culture and ensuring a shared understanding of values in the academic environment (Parks-Leduc et al., 2021; Perkins et al., 2020). Understanding the importance of shared values, aligning with them and putting them into practice does not happen by itself. It is important that these principles are clearly written down, made known to all members of the community and become part of daily practice. This is one of the main objectives of codes of ethics, which also aim to set the rules for academic integrity in higher education.

This paper consists of two parts. The first part presents an empirical study analysing the codes of ethics of higher education institutions providing business education in Hungary. Research confirms that business students are more likely to violate academic integrity than students in other disciplines (Grenness, 2022; McCabe, et al., 2001; Nonis & Swift, 2001; O'Neill & Pfeiffer 2012). Moreover, dishonest behaviour appears to be perpetuated in the professional lives of business students (Guerrero-Dib et al., 2020; Harding et al., 2004; Lawson 2004; Mulisa & Ebessa, 2021). This obvious connection draws increased attention to ethical issues related to academic integrity while students are still at university. Although the existence of a code of ethics does not automatically lead to academic integrity (Gullifer & Tyson, 2013), it could be the first step in promoting a culture of integrity.

The research questions of the exploratory study concern the content and accessibility of codes of ethics of business schools in Hungary. Beyond the accessibility of codes of ethics, the empirical research aims to show how business schools attempt to achieve a shared understanding of the values of the academic culture through the form and content of the codes of ethics. The research used content analysis to analyse data collected from university websites. The content analysis, which was conducted using MaxQDA software, shows which themes are most frequently expressed in the codes of ethics. The categories developed in the qualitative data analysis apply to different groups in the university culture, including not only students but also lecturers and administrative staff. The results highlight principles that are specific to certain institutions and cannot be considered general. The discussion of the findings also sheds light on the extent to which the accessibility, wording and comprehensibility of codes of ethics are tailored to the target group of students.

The existence of codes of ethics is no guarantee that the principles and expectations they contain are known and applied by stakeholders. In addition to a number of good practices, such as full courses on academic integrity, there are also indirect ways to raise students' awareness of the importance of the principles set out in the codes of ethics. The second part of the paper presents practical examples of indirect ways to raise students' awareness of the principles of academic integrity so that they can become familiar with the ethical expectations of their institution. The specific examples relate to the teaching of techniques of projective data collection and qualitative data analysis in a research methodology course. Although the research methodology course provides many opportunities to explicitly address the issue of academic integrity, we need to use every opportunity directly or indirectly, if we are to emphasise shared responsibility in promoting the principles of academic integrity.

Research confirms that while institutions set out their expectations for academic integrity in their codes of ethics, this is no guarantee that those involved are aware of and apply the principles. We are all responsible for putting the principles into practice. The main objective of the presentation is therefore to emphasise the importance of our shared responsibility in promoting the principles of academic integrity.

References

Bertram Gallant, T. (2017). Academic integrity as a teaching & learning issue: From theory to practice. *Theory Into Practice*, *56*(2), 88–94. https://doi.org/10.1080/00405841.2017.1308173

Bertram Gallant, T. (2018). Part-time integrity? contingent faculty and academic integrity. *New Directions for Community Colleges*, *2018*(183), 45–54. https://doi.org/10.1002/cc.20316

Bertram Gallant, T., & M. Stephens, J. (2020). Punishment is not enough: The moral imperative of responding to cheating with a developmental approach. *Journal of College and Character*, *21*(2), 57–66. https://doi.org/10.1080/2194587x.2020.1741395

Bertram Gallant, T., & Rettinger, D. (2022). An introduction to 30 years of research on Academic Integrity. *Journal of College and Character*, *23*(1), 1–5. https://doi.org/10.1080/2194587x.2021.2017975

Bretag, T. (2020). *A research agenda for academic integrity*. Edward Elgar Publishing.

Foltýnek, T., & Dlabolová, D. (2020). Academic integrity in Eastern Europe: Beyond corruption and plagiarism. *A Research Agenda for Academic Integrity*, 40–54. https://doi.org/10.4337/9781789903775.00010

Glendinning, I., & Orim, S.-M. (2022). Comparison of institutional strategies for Academic Integrity in Europe and Eurasia. *Academic Integrity: Broadening Practices, Technologies, and the Role of Students*, 29–46. https://doi.org/10.1007/978-3-031-16976-2_3

Grenness, T. (2022). “if you don’t cheat, you lose”: An explorative study of business students’ perceptions of cheating behavior. *Scandinavian Journal of Educational Research*, 1–15. https://doi.org/10.1080/00313831.2022.2116479

Guerrero-Dib, J. G., Portales, L., & Heredia-Escorza, Y. (2020). Impact of academic integrity on workplace ethical behaviour. *International Journal for Educational Integrity*, *16*(1). https://doi.org/10.1007/s40979-020-0051-3

Gullifer, J. M., & Tyson, G. A. (2013). Who has read the policy on plagiarism? unpacking

students' understanding of plagiarism. *Studies in Higher Education*, *39*(7), 1202–1218. https://doi.org/10.1080/03075079.2013.777412

Harding, T. S., Passow, H. J., Carpenter, D. D., & Finelli, C. J. (2004). An examination of the relationship between academic dishonesty and professional behavior. *IEEE Antennas and Propagation Magazine*, *46*(5), 133–138. https://doi.org/10.1109/map.2004.1388860

Lawson, R. A. (2004). Is classroom cheating related to business students' propensity to cheat in the "Real World"? *Journal of Business Ethics*, *49*(2), 189–199. https://doi.org/10.1023/b:busi.0000015784.34148.cb

Löfström, E. (2015). Academic Integrity in Social Sciences. *Handbook of Academic Integrity*, 1–13. https://doi.org/10.1007/978-981-287-079-7_47-1

McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (1999). Academic integrity in honor code and non-honor Code Environments: A qualitative investigation. *The Journal of Higher Education*, *70*(2), 211. https://doi.org/10.2307/2649128

McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (2001). Cheating in academic institutions: A Decade of Research. *Ethics & Behavior*, *11*(3), 219–232. https://doi.org/10.1207/s15327019eb1103_2

Mulisa, F., & Ebessa, A. D. (2021). The carryover effects of college dishonesty on the Professional Workplace Dishonest Behaviors: A systematic review. *Cogent Education*, *8*(1). https://doi.org/10.1080/2331186x.2021.1935408

Nonis, S., & Swift, C. O. (2001). An examination of the relationship between academic dishonesty and workplace dishonesty: A multicampus investigation. *Journal of Education for Business*, *77*(2), 69–77. https://doi.org/10.1080/08832320109599052

O'Neill, H. M., & Pfeiffer, C. A. (2012). The impact of honour codes and perceptions of cheating on academic cheating behaviours, especially for MBA bound undergraduates. *Accounting Education*, *21*(3), 231–245. https://doi.org/10.1080/09639284.2011.590012

Parks-Leduc, L., Mulligan, L., & Rutherford, M. A. (2021). Can ethics be taught? examining the impact of distributed ethical training and individual characteristics on ethical decision-making. *Academy of Management Learning & Education*, *20*(1), 30–49. https://doi.org/10.5465/amle.2018.0157

Perkins, M., Gezgin, U. B., & Roe, J. (2020). Reducing plagiarism through academic misconduct education. *International Journal for Educational Integrity*, *16*(1). https://doi.org/10.1007/s40979-020-00052-8

Tatum, H. E. (2022). Honor codes and academic integrity: Three decades of research. *Journal of College and Character*, *23*(1), 32–47. https://doi.org/10.1080/2194587x.2021.2017977

Socio-Cultural Aspects of Exam Cheating in Nepali Higher Education: A Call for Research Action

Devi Ram Acharya[1] and Bibek Dahal[2]Devi Ram Acharya[1] & Bibek Dahal[2]
[1]Kathmandu University, Lalitpur, Nepal
[2]University of Calgary, Calgary, Canada

Exam cheating is considered as highly concerned issue in case of academic productivity and integrity in Nepali higher education. It is not a new issue but the use of technology and stakeholders active involvement in exam cheating makes it more complex (Dahal & Eaton, 2023). Exam cheating is a multifaceted issue, considered as a result of individual misbehavior, ethnocentric influences, and systematic fault of the education system (Amzalag et al., 2022; Fleck, 2000). Not only students but stakeholders including parents involvement in exam cheating raised questions whether it is systematic fault or integrity crisis in Nepal. Though it is not the issue of a particular context or an institution, the factors behind their involvement in exam cheating could be contextually contested.

The practice of exam cheating can be considered as a result of memorization practices - memorization for written examination (Kumar et al., 2022). The approaches and reasons behind students participation in exam cheating could be contextual. For instance, Fleck (2000) emphases on ethnocentric reasons behind students involvement in exam cheating in the context of Nepal. The most noticeable practices of exam cheating in Nepal includes copy the answer from peers; provide an answer sheet to peers during the examination; use notes (or cheat notes) and technology (Fleck, 2000; Sapkota, 2017).

Exam cheating could be inversely reciprocal to the social prestige of high academic achievement. In most of the cases and contexts in Nepal, the high academic achievement in the examinations is linked with the pride and prestige in the family and community (Manns, 2018). Once the high achievement in the examination become social pride, it could motivate students to involve in exam cheating. On the other side, the students could be motivated for exam cheating to obtain a good job, get admission to a prestigious college and fulfill the family and societal expectations (McCabe et al., 2012). Exam cheating is not considered always as students misbehaviors but fault of the assessment system.

In this presentation, we discuss a faculty (first author/presenter) and a student (second author/presenter) experience, experiential learning and perspective on exam cheating based on the Nepali higher education context. The discussion focusses on context specific reasons behind students' involvement in exam cheating in Nepal and how faculty member experience, understand and interpret such challenging issue. Our discussion also includes faculty and student critical perspective towards the assessment praxis including how rapid commercialization in education is promoting the exam cheating in Nepal. Further, this discussion focusses on what would be the possible way-out to minimize the exam cheating such as re-think the current curriculum, pedagogical, and assessment practices of Nepali higher education.

The discussion extends how socio-cultural determinants and local cosmologic dimension motivates students to involve in exam cheating. Along with faculty and student experience, for this presentation, we use different evidence such as policies, news articles, social media contents and exam center status during examination, which represents how exam cheating is becoming a serious issue to ensure productivity and quality in Nepali higher education. It also extends the discourse whether the examination system has fault or we need to focus on the integrity competency

among all stakeholders including students and parents. These all we considered as call for action including the priority of research studies on exam cheating. There must be further empirical research for policy and system reformation. This presentation is for those faculty members, administrators, researchers and students who are interested to know how socio-cultural aspects make differences in exam cheating practices. And also, how do a faculty and a student from Nepal reflect their stories on socio-cultural aspects of exam cheating.

References

Amzalag, M., Shapira, N. & Dolev, N. (2022). Two sides of the coin: Lack of academic integrity in exams uuring the Corona pandemic, students' and lecturers' perceptions. *Journal of Academic Ethics, 20*, 243-263. https://doi.org/10.1007/s10805-021-09413-5

Dahal, B. & Eaton, S. E. (2023, March 21). Academic and research integrity in Nepal: A comprehensive policy analysis (Conference presentation). *Asia Pacific Research Integrity Network Meeting 2023*, Online.

Fleck, C. (2000). Understanding cheating in Nepal. *Electronic Magazine of Multicultural Education, 2*(1). https://www.dropbox.com/sh/32gnhv01ctg8nkk/AAA6DiQu90mMaKtqjfnrRC2va/2000-v2n1.StereotypePrejudiceDiscrimination?dl=0&preview=Fleck.pdf&subfolder_nav_tracking=1

Kumar, V., Verma, A., & Aggarwal, S. P. (2022). Assessing the influence of corrective measures on adverse attitudes and plagiaristic behavior. *Journal of Academic Ethics*. https://doi.org/10.1007/s10805-022-09467-z.

Manns, M. (2018). *The culture of testing: Sociocultural impacts on learning in Asia and the Pacific*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000261955 .

McCabe, D. L., Butterfield, K. D. & Treviño, L. K. (2012). *Cheating in college: Why students do It and what educators can do about it*. The Johns Hopkins University Press.

Sapkota, J. (2017, October 15). Cheating in MBBS exam: The number of people arrested has reached 22 [Nepali]. *Kantipur Daily*. https://ekantipur.com/news/2017/10/15/20171015202839.html

Academic integrity in school education: Exploring the research landscape

Özgür Çelik, Balıkesir[1], Bradford Barnhardt[2], Colleen Fleming[3], Dita Henek Dlabolová[4], [5]Güneş Saygı, Ian G. Kennedy[5], Irene Glendinning[6], Leeanne Morrow[7], Rita Santos[4], Salim Razı[8], Shivadas Sivasubramaniam[9], Temel Serdar Yılmaz[1], Zakir Hossain[11], Zeenath Reza Khan[12]

[1]Balıkesir University, Türkiye, [2]Woodstock School, India, [3]Calgary Academy, Canada, [4]ENAI, Czechia, [5]Adana Anatolian High School, Türkiye, [6]St Angela's College, Ireland, [7]Coventry University, UK, [8]University of Calgary, Canada, [9]Çanakkale Onsekiz Mart University, Türkiye, [10]University of Derby, UK, [11]ICS Inter-Community School Zurich, Switzerland, [12]University of Wollongong in Dubai, UAE,

Just over a decade ago, McCabe et al. (2012) proposed six reasons why academic integrity is central to education: "(1) integrity is the cornerstone of academia, (2) cheating is widespread and on the rise, (3) the college years are a critical period for ethical development, (4) college students face significant pressures to cheat, (5) students are being taught that cheating is acceptable, and (6) today's college students represent tomorrow's leaders" (McCabe et al., 2012, p. 3). The sixth reason clearly addresses the importance of academic integrity at all levels, especially in pre-university education, where students develop their moral identity (Wangaard, 2016). Many studies also establish that students involved in questionable practices in pre-university years are likely to continue their habits in higher education (Bertram Gallant & Stephens, 2020; Hendershott et al., 2000; Hossain, 2021; Johansen et al., 2022; Stephens, 2019). Therefore, maintaining high standards for academic integrity in K - 12 schools offers promising outcomes for higher education. Moreover, academic integrity is closely linked to academic achievement (Berkowitz, 2011). As Bertram Gallant (2018) proposes, we cannot expect students to be truly successful without integrity. In this respect, academic integrity should be considered an essential component of school education, and it can be deemed as a fruitful endeavour to instil integrity in students at a young age.

Academic integrity is of great importance in school education. However, it is not sufficiently studied as a research topic at the pre-university levels compared to higher education (Hossain, 2020). There may be several reasons for this, but one important universal reason is the "national curriculum" which mainly focuses on training students to enter universities either for STEM or non-STEM areas of study (Sivasubramaniam, 2022). Therefore, integrity/ethics education has become less important for school teachers to incorporate into their courses or syllabi. Although academic curricula are continually updated to meet the demands of the knowledge society, Price-Mitchell (2015) argues that educators and institutions pay little attention to the principles and attitudes that build ethical and moral consciousness.

Thus, it is important for several reasons to explore the quality and quantity of academic integrity research that is focused on school education. First, it reveals the current status and trends of academic integrity studies. Second, it uncovers gaps and problems that are not being addressed. Third, it can lead to suggestions and perspectives to formulate student-centred activities and workshops in integrity education for both pupils and teachers, which will scaffold toward the skills needed in further and/or higher education. In this respect, this study is a scoping review of scholarly works about academic integrity in school education that reveals the trends and gaps on this topic and offers suggestions for future studies.

We used the PRISMA scoping review framework developed by Tricco et al. (2018). We generated as many alternative keywords as possible for "academic integrity" and "school education," which resulted in 39 keywords in total. We conducted a literature search in the

Web of Science and Scopus databases. The keywords search yielded 3,928 studies in total (WoS = 1,350; Scopus = 2,578). We removed the duplicate entries in both databases and reviewed each study to determine the relevant studies for the analysis. We included only academic integrity-related studies conducted in the school education context. We excluded studies in higher education contexts. The review came up with 495 studies (WoS = 202; Scopus = 293). We conducted the analysis under three domains: production, content, and methods. In the production domain, we explored the publication details of studies based on journals, authors, and references. In the content domain, we revealed the conceptual structure of studies such as co-occurrence network, thematic map, and thematic evolution. Lastly, in the methods domain, we presented the common methods used in the studies, such as research design, research instruments, or target groups. In order to analyse production and content domains, we used bibliometrix, an R-based tool used for science mapping, developed by Aria and Cuccurullo (2017). Since the bibliometrix tool is not capable of analysing methodological choices in the studies, we conducted the analysis in the methods domain manually.

We conducted the analysis using the bibliometrix tool on 495 studies from 353 sources published between 1914 and 2023, contributed by 1,147 authors, with 134 of them being single-authored studies. The preliminary findings show a sharp increase in academic integrity studies about school education starting from 2012 that reached its peak in 2022 (*n* = 72). The top five countries that publish on this topic are Indonesia (*n* = 175), USA (*n* = 160), Türkiye (*n* = 52), China (*n* = 38), and Malaysia (*n* = 21), respectively. *The Journal of Moral Education* is the journal with the most publications (*n* = 10), followed by *Ethics and Behavior*, *International Journal of Instruction*, and *Milli Eğitim* (National Education - translated from Turkish) with seven publications each. The study by Jacob and Levitt (2003) is the most globally cited document, with 448 citations in total. Character education (*n* = 59), values education (*n* = 31), cheating (*n* = 26), plagiarism (*n* = 26), ethics (n = 25), and academic dishonesty (*n* = 21) are among the most frequent keywords used, respectively.

In this presentation, we will provide a more detailed analysis of the thematic evolution of studies and the methodological choices of researchers. We will then discuss topics with potential for further research and invite input from participants.

Keywords: academic integrity, school education, K-12, pre-university years, scoping review

References

Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of informetrics*, *11*(4), 959-975.

Berkowitz, M. W. (2011). What works in values education. *International Journal of Educational Research*, *50*(3), 153–158.

https://doi.org/10.1016/j.ijer.2011.07.003

Bertram Gallant, T., & M. Stephens, J. (2020). Punishment is not enough: The moral imperative of responding to cheating with a developmental approach. *Journal of College and Character*, *21*(2), 57–66. https://doi.org/10.1080/2194587X.2020.1741395

Hendershott, A., Drinan, P., & Cross, M. (2000). Toward enhancing a culture of academic integrity. *NASPA Journal*, *37*(4), 587–598. https://doi.org/10.2202/1949-6605.1119

Hossain, Z. (2020). Connecting policy to practice: How do literature, standards and guidelines inform our understanding of the role of school library professionals in cultivating an academic integrity culture?. *Synergy*, *18*(1). http://slav.vic.edu.au/index.php/Synergy/article/view/373

Hossain, Z. (2021). Academic integrity literacy of students at the time of enrolment in postsecondary courses: A study of an online

university. In *Book of abstracts European Conference on Academic Integrity and Plagiarism 2021* (pp. 33–37). https://academicintegrity.eu/conference/proceedings/2021/book_of_abstracts2021.pdf#page=33

Jacob, B. A., & Levitt, S. D. (2003). Rotten apples: An investigation of the prevalence and predictors of teacher cheating. *The Quarterly Journal of Economics*, *118*(3), 843-877.

Johansen, M. W., Goddiksen, M. P., Centa, M., Clavien, C., Gefenas, E., Globokar, R., ... & Lund, T. B. (2022). Lack of ethics or lack of knowledge? European upper secondary students' doubts and misconceptions about integrity issues. *International Journal for Educational Integrity*, *18*(1), 20.

McCabe, D. L., Butterfield, K. D., & Treviño, L. K. (2012). *Cheating in college: Why students do it and what educators can do about it*. JHU Press.

Price-Mitchell, M. (2015). *Integrity in the Classroom*. Psychology Today. https://www.psychologytoday.com/ca/blog/the-moment-youth/201509/integrity-in-the-classroom

Sivasubramaniam, S. D. (2022). Incorporating ethics into everyday classroom in science education. In S. E. Eaton & Z. R. Khan (Eds.), *Ethics and integrity in teacher education* (pp. 147-159). Springer. https://doi.org/10.1007/978-3-031-16922-9_10

Stephens, J. M. (2019). Natural and normal, but unethical and evitable: The epidemic of academic dishonesty and how we end it. *Change: The Magazine of Higher Learning*, *51*(4), 8–17. https://doi.org/10.1080/00091383.2019.1618140

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of Internal Medicine*, *169*(7), 467-473.

Wangaard, D. B. (2016). Practices to support developing academic integrity in secondary school students. In T. Bretag (Ed.), *Handbook of Academic Integrity* (pp. 429–448). Springer. https://doi.org/10.1007/978-981-287-098-8_34

OMBUDSPERSONS AS PROPONENTS OF ACADEMIC INTEGRITY

Jan Gałkowski
University of Rzeszow, Poland

Academic ombudspersons are becoming a permanent element of academic structures. In some countries, the post is legally required, and in some it has been established as a response to grassroots demand. The working models of ombudspersons differ from each other. In the United States of America, the model of the so-called institutional ombuds is proposed by the International Ombuds Association and refers to their Standards of Practice and Code of Ethics. In Europe, both the terminology concerning the post and the scope of duties vary not only between countries and/or between individual universities. The key role of academic ombudspersons is to resolve tensions and conflicts arising in the academic community. Regardless of whether the academic ombudspersons are members of the International Ombuds Association, they usually reference to the four fundamental principles indicated by this organization: independence, impartiality, informality, and confidentiality.

In the proposed presentation, I would like to put forward how academic ombudspersons work to promote academic integrity in the below-mentioned four realms of their activity.

Although their main role is to mitigate disputes and resolve conflicts, academic ombudspersons also often serve as advocates of academic integrity, which happens in various situations, while it depends, of course, on the adopted format of operation of a given ombudsperson.

Firstly, when meeting with members of the academic community, they are often a source of information about university rules, applicable law, and academic customs. In informal conversations, they advise on both typical and very unusual matters, including - among many other issues - copyright, plagiarism, and research ethics.

Secondly, ombudspersons participate in conducting trainings and workshops for the academic community or, if they do not conduct them personally, they co-organize them and co-author the content provided during the trainings organized for persons working or studying at the university. Many universities engage in studying the training needs of their employees and their students concerning the issues of ethics and law.

Thirdly, academic ombudspersons usually impact the process of shaping the policy of a given university in terms of ethical issues, academic customs, and internal legal solutions. They have the opportunity to indicate challenging areas and problems in solving which academic authorities have not been sufficiently involved. Occasionally, ombudspersons also have the opportunity to be directly involved in the development of internal regulations, recommendations, or codes of ethics.

As Lies Poesiat writes (2022, 113) “the function of ombudsman is usually a solitary one". Fourthly, therefore, to overcome their loneliness and to seek a support, ombudspersons cooperate within networks or organizations at the national or supranational level, such as the above-mentioned International Ombuds Association or the European Network of Ombuds in Higher Education, which provides an opportunity to establish common standards, exchange good practices and mutual support.

Concluding, I would like to propose a thesis that academic ombudspersons can be highly noteworthy in contributing to implementing ethical changes in the academic environment. Although, due to the rules of confidentiality and informality, their activities may often seem

unnoticed, the work of an ombudsperson is significant and can bring excellent outcomes. It is in HEI's interest to appoint academic ombudspersons, support their activities, and establish the broadest possible framework for their activities.

References:

International Ombuds Association. (2022). *Code of Ethics.* https://ioa.memberclicks.net/assets/docs/SOP-COE/IOA_Code_of_Ethics_English.pdf

International Ombuds Association. (2022). *Standards of practice.* https://ioa.memberclicks.net/assets/docs/SOP-COE/IOA_Standards_of_Practice_English.pdfPoesiat , L. (2022). *Ombuds Work in Higher Education. A Practical Guide*. VU University Press.

HUMANITIES IN TRAINING MEDICAL STUDENTS: WHAT DOES INTEGRITY MEAN TO THEM?

Laura Ribeiro[1,2], Ana Claudia Souza[1], Ana Cristina Veríssimo[1] & Milton Severo[3,4]

[1]Department of Public Health and Forensic Sciences and Medical Education, Medical Education Unit, Faculty of Medicine, University of Porto, Portugal

[2] I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal

[3] School of Medicine and Biomedical Sciences (ICBAS), University of Porto, Portugal

[4]Institute of Public Health, University of Porto, Portugal

Background: Integrity involves acting and making decisions according to ethical principles and practices (Tauginienė et al., 2018) and is one of the core values underpinning medical professionalism and excellence in medical practice, being crucial to sustain high standards of patient care and public trust (ABIM Foundation; ACP-ASIM Foundation; and European Federation of Internal Medicine, 2002; Tallis, 2006).

The Core Commitments initiative on Educating Students for Personal and Social Responsibility by the Association of American Colleges and Universities's (n.d.) established five dimensions of personal and social responsibility: a) striving for excellence; b) cultivating personal and academic integrity; c) contributing to a larger community; d) taking seriously the perspectives of others and d) developing ethical and moral reasoning skills, also defending this reasoning should be applied both in learning and in life and should support the way the above responsibilities are incorporated. These and other core qualities for medical profession such as empathy, compassion and integrity can be learned, developed and cultivated by medical students through the integration of medical humanities in the medical curricula (Shapiro et al., 2015). Medical students who receive a "virtues-based" training are more likely to commit to the academic integrity values of honesty, trust, fairness, respect, and responsibility within their teaching-learning and/or research activities (International Center for Academic Integrity, 2014; Tauginienė et al., 2018). As future physicians, they are closer to become competent and ethically responsible physicians, while those who fail to develop these values are at greater risk to engage in unethical behaviour, undermining the mission and values of the medical profession and threatening public health and safety (Papadakis et al., 2005).

As future doctors, medical students are expected to become morally competent healthcare professionals to manage ethical considerations arising in academia and patient care (Savulescu et al., 1999). Therefore, research on students' perceptions of academic integrity might have important implications in medical education, as they underline the need to train our students, providing them the ethical foundations for the excellence of clinical practice.

Objectives: This study aims to understand the meaning of integrity from the perspective of medical students and how this is affected by attending an academic integrity training session and their personal and academic features.

Methods: Within a humanities course, around 200 medical students attending the first year (6-year course) will be asked to indicate words they associate with integrity before and after a seminar-based training covering this topic. Data on age, gender and academic performance will be also collected. This study will follow the ethical principles approved by

the Ethics Committee of the University of Porto.

(Prospective) Results: The results should provide an overview of medical students' perceptions towards the meaning of integrity before and after a seminar-based training, as well as the possible influence that variables such as age, gender or academic performance might have on those perceptions.

Conclusion: This study will provide a better understanding of the meaning medical students attribute to integrity, exposing possible gaps and misconceptions and assessing underlying factors. In line with this, this study might prompt a reflection on current strategies and how they can be improved to best teach integrity. This can help nurture core character virtues for medical students to face future challenges regarding integrity and ethical dilemmas, acting with professional responsibility. Ultimately, we also intend to contribute to enhance ethical awareness and commitment of medical students to acting with integrity in academia and in future professional life.

References

ABIM Foundation; ACP-ASIM Foundation; and European Federation of Internal Medicine. (2002). Medical professionalism in the new millennium: A physician charter. *Annals of Internal Medicine*, *136*(3), 243–246. https://doi.org/10.7326/0003-4819-136-3-200202050-00012

Association of American Colleges and Universities (n.d.). Core Commitments: Educating Students for Personal and Social Responsibility. Available at: https://www.aacu.org/core_commitments

International Center for Academic Integrity. (2014). *The Fundamental Values of Academic Integrity* (T. Fishman (ed.); 2nd ed.). Clemson University. https://academicintegrity.org/wp-content/uploads/2017/12/Fundamental-Values-2014.pdf

Papadakis, M. A., Teherani, A., Banach, M. A., Knettler, T. R., Rattner, S. L., Stern, D. T., Veloski, J. J., & Hodgson, C. S. (2005). Disciplinary action by medical boards and prior behavior in medical school. *The New England Journal of Medicine*, *353*(25), 2673–2682. https://doi.org/10.1056/NEJMsa052596

Savulescu J, Crisp R, Fulford KWM, Hope T. Evaluating ethics competence in medical education. J Med Ethics. 1999;25(5):367–74.

Shapiro, J., Nixon, L. L., Wear, S. E., & Doukas, D. J. (2015). Medical professionalism: what the study of literature can contribute to the conversation. *Philosophy, Ethics, and Humanities in Medicine*, *10*(1). https://doi.org/10.1186/S13010-015-0030-0

Tallis, R. C. (2006). Doctors in society: medical professionalism in a changing world. *Clinical Medicine*, *6*(1), 7–12. https://doi.org/10.7861/clinmedicine.6-1-7

Tauginienė, L., Gaižauskaitė, I., Glendinning, I., Kravjar, J., Ojsteršek, M., Ribeiro, L., Odiņeca, T., Marino, F., Cosentino, M., & Sivasubramaniam, S. (2018). Glossary for Academic Integrity. In ENAI Report 3G. https://doi.org/10.13140/RG.2.2.34997.37608

Tweedie, J., Hordern, J., & Dacre, J. (2018). *Advancing medical professionalism*. Royal College of Physicians.

Chilean Academic Integrity leaders' meaning making through the stories of their current leadership roles

Beatriz A. Moya & Sarah E. Eaton
University of Calgary, Canada

Introduction

Challenges to higher education institutions have impacted one of their core missions: academic integrity. Academic integrity encompasses a variety of definitions; for instance, it is recognized as a commitment to courage, fairness, honesty, responsibility, respect, and trust (ICAI, 2014) and as the foundation of educational institutions' reputation (Bretag, 2013). Some of the most visible disruptions to academic integrity have been contract cheating, file-sharing, plagiarism, and the unethical use of artificial intelligence (Comas-Forgas, 2020; Eaton, 2021; Kumar et al., 2022).

Problem Statement

Academic integrity scholars have identified the punitive approach to academic integrity as inadequate due to its: a) lack of robustness to respond to external accountability (Bertram Gallant, 2008; Bretag et al., 2019), b) insufficient guidelines for faculty to develop suitable teaching methods and ethical assessments (Bretag, 2016; Eaton, 2020), c) unresponsiveness towards fast-growing file-sharing and contract cheating companies and the unethical use of artificial intelligence (Kumar et al., 2022; Rogerson & Basanta, 2016; Yorke et al., 2020), and d) deficient awareness of equity, diversity, inclusion, decolonization and Indigenization perspectives (Lindstrom, 2022; Pratt & Gladue, 2022).
The alternative, the systems approach, involves all stakeholders in an educational community in safeguarding academic integrity (Bertram Gallant, 2008; Bretag, 2013; Eaton, 2020, 2021); however, its adoption has been slow (Bertram Gallant, 2016; Thacker & McKenzie, 2022). Hence, the first problem this study addresses is the inadequacy and prevalence of the punitive approach to academic integrity in higher education and the slow transition to a systems approach.

The second problem is connected to current calls to prioritize equity, diversity, inclusion, decolonization, and Indigenization in higher education (Eaton, 2022; Lindstrom, 2022; Pratt & Gladue, 2022). Embracing other ways of knowing could lead to more dialogue, multiplicity, and complementary perspectives, leading to new definitions of academic integrity that involve various stakeholders (Eaton, 2022; Lindstrom, 2022; Poitras Prat & Gladue, 2022; Rettinger & Bertram Gallant, 2008).

Conceptual Framing: Academic Integrity through a SoTL and Leadership Lens

We propose the analysis of academic integrity from a Scholarship of Teaching and Learning (SoTL) and leadership lens to analyze gaps between individual practices and institutional expectations to uphold academic integrity. SoTL focuses on students' learning and the teaching and environments that could better support it (Felten, 2013; Hubball et al., 2013; Kenny et al., 2016; Kreber, 2013; Miller-Young & Yeo, 2015). Current views on SoTL also centre on teaching and learning as a public endeavour with issues beyond classroom settings and multiple opportunities for collaboration (Hutchings et al., 2011; Kreber, 2002; Trigwell, 2021).

Academic integrity from a systems approach and SoTL share their interest in developing a better understanding of students' learning (Bertram Gallant, 2008; O'Brien, 2008) and in

weaving interconnections that could create a sustainable infrastructure to support it (Bertram Gallant, 2016; Kenny & Eaton, 2022; Miller-Young et al., 2017). Some SoTL scholars have taken the lead in studying how to influence teaching and learning organizations and offered new insight into significant networks, dyadic conversations, integrated networks, and micro-cultures (Roxå & Mårtensson, 2009, 2012; Taylor et al., 2021; Verwood & Poole, 2016).

Building from the work of academic integrity and SoTL scholars, we intend to focus on academic integrity from a SoTL and leadership lens as we believe it could provide a conceptual grounding to help identify situated and sustainable paths to promote academic integrity at various organizational levels.

Research Question

This study's research question is: How do academic integrity leaders make meaning through the stories of their current leadership roles to promote academic integrity cultures in Chilean higher education? This study aims to address theoretical and empirical gaps between individual and institutional practices in academic integrity's promotion and provide a Hispanic South American perspective to current international dialogues in the field.

Methods

This is an interpretive SoTL narrative inquiry (Miller-Young & Yeo, 2015). The interpretive approaches in SoTL focus on reality as locally constructed (Miller-Young & Yeo, 2015) and consider flexibility for some of its components (Hubball & Clarke, 2010; Miller-Young & Yeo, 2015). Narrative inquiry is a kind of interpretive approach (Miller-Young & Yeo, 2015) and is also embedded in qualitative research traditions (Yilmaz, 2013). Under narrative inquiry, educational problems' understanding grows from individuals' experiences communicated through stories (Creswell, 2018; Riessman, 2011).

The twenty-five research participants, selected through a non-probability purposeful snowball sampling, were students, staff members, instructors, scholars, and administrators holding formal and informal leadership positions to promote academic integrity in three Chilean universities. Interviews were the main data collection method and were analyzed through thematic narrative analysis.

Implications and Preliminary Results

This study's results have implications for educational leaders, scholars, practitioners, and policymakers in Chile and overseas focused on international or comparative education, especially those interested in or currently working in Hispanic South America. This study could be significant for international academic integrity organizations working with stakeholders in South America or seeking to implement the systems approach in regions where interest in it is emerging. Readers accessing the results of this inquiry could find Hispanic South American situated experiences, knowledge, and insights about academic integrity.

Preliminary results highlight the variety of narratives of academic integrity educational leaders in Chilean higher education in diverse roles built from their experiences in the recent transition from a punitive to a systems approach. These narratives embody moments of tension/struggle, connectedness/trust, engagement/action, solitude/reflection, and patience/strategy in their past and current academic integrity work in various formal and informal learning spaces. These narratives also show the leaders' interpretations of how the individual, departmental, institutional, and national contexts surrounding academic integrity and academic misconduct shape their roles; likewise, they reveal the various paths that academic integrity educational leadership in Chile has taken or is taking. The academic

integrity educational leaders in Chile narratives provide situated insights into how these leaders have developed their roles over time and from meaning-making processes derived from personal, professional, and educational experiences; some of these experiences emerge from early childhood interactions with family members and others from situations with faculty, classmates, and colleagues in the Chilean educational system.

References

Bertram Gallant, T. (2008). *Academic integrity in the twenty-first century: A teaching and learning imperative.* San Francisco: Jossey-Bass.

Bertram Gallant, T. (2016). Systems approach to going forward. In T. Bretag (Ed.), *Handbook of academic integrity* (1st ed., pp. 975–977). Springer. https://doi.org/10.1007/978-981-287-098-8

Bretag, T. (2013). *Short-cut students: Fostering academic integrity in students*. Global Corruption Report: Education.

Bretag, T. (2016). Contextual factors which impact on academic integrity: Introduction. In T. Bretag (Ed.), *Handbook of academic integrity* (1st ed., pp. 305-306). Springer. https://doi.org/10.1007/978-981-287-098-8

Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., Rozenberg, P., . . . van Haeringen, K. (2019). Contract cheating: A survey of Australian university students. *Studies in Higher Education, 44*(11), 1837–1856. https://doi.org/10.1080/03075079.2018.1462788

Comas-Forgas, R., Sureda-Negre, J., & Morey-López, M. (2020). Spanish contract cheating website marketing through search engine advertisements. *Assessment & Evaluation in Higher Education*, 1–13. https://doi.org/10.1080/02602938.2020.1841091

Creswell, J. W. (2018). *Educational research: Planning, conducting and evaluating quantitative and qualitative research*. PEARSON.

Eaton, S. E. (2020). Academic integrity in 2020: Editorial year in review. *Canadian Perspectives on Academic Integrity, 3*(2), 1–10. https://journalhosting.ucalgary.ca/index.php/ai/article/view/71636/54502

Eaton, S. E. (2021). *Plagiarism in higher education: Tackling tough topics in academic integrity.* ABC-CLIO.

Eaton, S. E. (2022). New priorities for academic integrity: Equity, diversity, inclusion, decolonization and Indigenization. *International Journal for Educational Integrity, 18*(10), 1–12. https://doi.org/10.1007/s40979-022-00105-0

Felten, P. (2013). Principles of good practice in SoTL. *Teaching and Learning Inquiry, 1*(1), 121–125. https://doi.org/10.20343/teachlearninqu.1.1.121

Hubball, H., Pearson, M. L., & Clarke, A. (2013). SoTL inquiry in broader curricular and institutional contexts: Theoretical underpinnings and emerging trends. *Teaching and Learning Inquiry, 1*(1), 41–57. https://doi.org/10.2979/teachlearninqu.1.1.41

Hubball, H., & Clarke, A. (2010). Diverse methodological approaches and considerations for SoTL in higher education. *The Canadian Journal for the Scholarship of Teaching and Learning, 1*(1). https://ojs.lib.uwo.ca/index.php/cjsotl_rcacea/article/view/6876

Hutchings, P., Huber, M. T., & Ciccone, A. (2011). Why the scholarship of teaching and learning matters today. In P. Hutchings, M. T. Huber, & A., Ciccone (Eds.), *The scholarship of teaching and learning reconsidered: Institutional integration and impact* (pp. 1–23). Jossey-Bass.

International Center for Academic Integrity (ICAI, 2014). *The fundamental values of academic integrity* (3rd ed.). https://academicintegrity.org/images/pdfs/20019_ICAI-Fundamental-Values_R12.pdf

Kenny, N., & Eaton, S. E. (2022). Academic integrity through a SoTL lens and 4M framework: An institutional self-study. In S.E Eaton & J. Christensen Hughes (Eds.), *Academic integrity in Canada: An enduring and essential challenge.* Springer. https://link.springer.com/book/10.1007/978-3-030-83255-1

Kenny, N., Watson, G. P. L., & Desmarais, S. (2016). Building sustained action: Supporting

an institutional practice of SoTL at the University of Guelph. *New Directions for Teaching and Learning, 146*, 87–94. https://doi.org/10.1002/tl.20191
Kreber, C. (2002). Controversy and consensus on the scholarship of teaching. *Studies in Higher Education, 27*(2), 151–167. https://doi.org/10.1080/03075070220119995
Kreber, C. (2013). The transformative potential of the scholarship of teaching. *Teaching and Learning Inquiry, 1*(1), 5–18. https://doi.org/10.20343/teachlearninqu.1.1.5
Kumar, R., Mindzak, M., Eaton, S. E., & Morrison, R. (May 17, 2022). *AI & AI: Exploring the contemporary intersections of artificial intelligence and academic integrity* [Conference Session]. Canadian Society for the Study of Higher Education Annual Conference [Online]. http://hdl.handle.net/1880/114647
Lindstrom, G. E. (2022). Accountability, relationality and Indigenous epistemology: Advancing an Indigenous perspective on academic integrity. In S. E. Eaton & J. C. Hughes (Eds.), *Academic integrity in Canada* (pp. 125–139). Springer International Publishing. https://doi.org/10.1007/978-3-030-83255-1
Miller-Young, J., Anderson, C., Kiceniuk, D., Mooney, J., Riddell, J., Schmidt Hanbidge, A., Ward, V., Wideman, M., & Chick, N. (2017). Leading Up in the Scholarship of Teaching and Learning. *The Canadian Journal for the Scholarship of Teaching and Learning, 8*(2). https://doi.org/10.5206/cjsotl-rcacea.2017.2.4
Miller-Young, J., & Yeo, M. (2015). Conceptualizing and communicating SoTL: A framework for the field. *Teaching and Learning Inquiry, 3*(2), 37–53. https://doi.org/10.20343/teachlearninqu.3.2.37
O'Brien, M. (2008). Navigating the SoTL landscape: A compass, map and some tools for getting started. *International Journal for the Scholarship of Teaching and Learning, 2*(2), Article 15. https://doi.org/10.20429/ijsotl.2008.020215
Pratt, Y. P., & Gladue, K. (2022). Re-defining academic integrity: Embracing Indigenous Truths. In S. E. Eaton & J. C. Hughes (Eds.), *Academic integrity in Canada* (pp. 103–123). Springer International Publishing. https://doi.org/10.1007/978-3-030-83255-1
Rettinger, D., & Bertram Gallant, T. (2022). Thirty years of active academic integrity research and engagement: What have we learned? *Journal of College and Character, 23*(1), 92–95. https://doi.org/10.1080/2194587x.2021.2017976
Riessman, C. K. (2011). What's the difference about narrative inquiry? Cases, categories. In D. Silverman, *Qualitative research* (3rd edition, pp. 310–330). SAGE Publications.
Rogerson, A., & Basanta, G. (2016). Peer-to-peer file sharing and academic integrity in the internet age. In T. Bretag (Ed.), *Handbook of academic integrity* (1st ed., pp. 273–286). Springer Science+Business Media Singapore. https://doi.org/10.1007/978-981-287-098-8
Roxå, T., & Mårtensson, K. (2009). Significant conversations and significant networks-exploring the backstage of the teaching arena. *Studies in Higher Education, 34*(5), 547–559. https://doi.org/10.1080/03075070802597200
Roxå, T., & Mårtensson, K. (2012). How effects from teacher-training of academic teachers propagate into the meso level and beyond. In E. Simon & G. Pleschová (Eds.), *Teacher development in higher education: Existing programs, program impact, and future trends*. Routledge. https://doi.org/10.4324/9780203096826
Simmons, N., & Poole, G. (2016). The history of SoTL in Canada: Answering calls for action. *New Directions for Teaching and Learning, 146*, 13–22. https://doi.org/10.1002/tl.20182
Taylor, K. L., Kenny, N. A., Perrault, E., Mueller, R. A., Taylor, K. L., Kenny, N. A., Perrault, E., & Mueller, R. A. (2021). Building integrated networks to develop teaching and learning: The critical role of hubs. *International Journal for Academic Development,* 1–13. https://doi.org/10.1080/1360144X.2021.1899931
Thacker E. J., & McKenzie, A. (2022). Using quality assurance frameworks to support an institutional culture of academic integrity at Canadian universities. In S. E. Eaton & J. C. Hughes (Eds.), *Academic integrity in Canada: An enduring and essential challenge* (pp. 519–534). Springer.

Trigwell, K. (2021). Scholarship of teaching and learning. In L. H. & D. Chalmers (Eds.), *University teaching in focus: A learning-centred approach* (2nd ed., pp. 286–303). Routledge.
Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education, 48*(2), 311–325. https://doi.org/10.1111/ejed.12014
Yorke, J., Sefcik, L., & Veeran-Colton, T. (2020). Contract Cheating and Blackmail: A Risky Business? *Studies in Higher Education,* 1–14. https://doi.org/10.1080/03075079.2020.1730313
Verwood, R., & Poole, G. (2016). The role of small significant networks and leadership in the institutional embedding of SoTL. *New Directions for Teaching and Learning, 146*, 79–86. https://doi.org/10.1002/tl

Development and Validation of an Instrument to Assess the Knowledge, Practices, and Perceptions

Sumayyia Marar, Muaawia A. Hamza & Amani Abu-Shaheen
King Fahad Medical City, Riyadh Second Health Cluster, Riyadh, Saudia Arabia

Objective. The main aim of this study is to develop a valid and reliable instrument to assess levels of knowledge, practices, and perceptions of predatory journals. Methods. The current study employed a mixed methods framework including: (1) a literature review and theoretical framework development, (2) a qualitative study using a focus group of 7 participants and a panel of 10 experts to conduct face validity and content validity, (3) a quantitative study was applied to 304 participants to check its construct validity using exploratory factor analysis (EFA) with principal axis factoring (PFA) and varimax rotation for practices and perception dimensions as well as to assess the reliability of each construct. All items that have favor loading of less than or equal to 0.30 were discarded from the analysis. The internal consistency for the knowledge dimension was approached using item analysis and test-retest reliability while it was using Cronbach's alpha and item-to-total correlations for practices and perceptions dimensions. Results. An instrument was developed from this study and called "Predatory Journals KPP Assessment Questionnaire". The results of KMO tests for each construct showed sampling adequacy for conducting an EFA (p-values < 0.05). The percentages of the total explained variance were 63.7% and 49.1% for practices and perception constructs, respectively. Item analysis confirmed that internal consistency and test-retest reliability were achieved for the knowledge scale items, consisting of 13 items. The results of EFA confirmed the measured constructs of practices and perceptions toward predatory journals. The EFA for practices revealed two factors: general practices with 5 items and checking practices with 11 items. The knowledge dimension resulted in only one factor with 9 items.

Conclusion. This study has successfully developed a valid and reliable questionnaire to measure knowledge, practices, and perceptions on predatory journals among researchers in the clinical and health discipline. This instrument serves as a valuable guide for future studies that aimed to assess researcher's knowledge, practices, and perceptions about predatory journals and examined the differences in these measured constructs according to their demographic and professional characteristics.

Academic Integrity: The virtues and vices of those who research, those who teach, and those who learn

Katy Dineen

University College, Cork, Ireland

In recent years, the term 'academic integrity' has come to the fore in the context of Higher Education. The emergence of the prioritisation of academic integrity has been driven by a perceived threat to the integrity of student academic work. Although difficult to measure, it is clear that plagiarism is prevalent among students (Curtis et al, 2022). Moreover, the 2020 global pandemic began an upward trend in the prevalence of student plagiarism (Manika & Goel, 2022; Rubén et al, 2021); and with the emergence of chatAPIs and GPT-3 (Cotton, Cotton &Shipway, 2023), it is reasonable to hypothesise that this upward trend may rise sharply.

The growing threats to student academic integrity may unduly focus attention on student plagiarism at the expense of narrowing our view away from the broader landscape of integrity within the context of Higher Education. In this paper, I will present a framework of academic integrity which places student plagiarism within this broader context of Higher Education, wherein integrity is applicable to students, academics, researchers and all working within Higher Education. This framework will position academic integrity as a meta-virtue, which encompasses more discrete forms of integrity (student academic integrity, research integrity, the integrity of those who teach, etc). One of the key benefits of this framework will be to show clearly the conceptual links between academic integrity and research integrity. This clarity will help those who teach and those who learn to recognize both the distinction between student academic integrity and research integrity, and the commonalities shared by both forms of integrity. This will be helpful in forming teaching and learning interventions to address integrity as well as informing policy around integrity.

The framework of academic integrity I will present in this paper will make use of virtue epistemology, the philosophical approach to theories of what and how we know, which prioritises certain virtues as fundamental (Turri, Alfano & Greco, 2021). As such, I will focus on *intellectual* virtue and vice, rather than *moral* virtue and vice (Baehr, 2015).

I will argue that the differentiation between intellectual virtue and moral virtue is important in the context of academic integrity at the level of Higher Education. Academic integrity need not be a moral issue; upholding academic integrity need not become an endeavour at moralising to academics and students. A focus on intellectual virtue allows those interested in students' academic integrity to appeal to their character as scholars, and their burgeoning identity as academics within their disciplines, rather than appealing to their moral code. Likewise, a focus on intellectual virtue allows researchers and academics to recognise the necessity of embodying particular virtues (intellectual humility, intellectual honesty, for example) in order to push the boundaries of knowledge in their discipline.

I will situate academic integrity as a 'meta' virtue, which sits over other intellectual virtues; virtues which are inextricable from the aims of Higher Education as the intellectual pursuit of knowledge and learning. Thus, academic integrity is the meta-virtue which helps researchers, academics, and students alike in framing their contribution to intellectual work. I will tie this idea of academic integrity as a meta virtue which sits over and informs good academic conduct (both student and researcher) to the purpose of Higher Education, using the work of Cardinal Henry Newham (1852).

Following Newham, the purpose of (higher level) education is not tethered to conferring subject level knowledge but can form the intellect more broadly; nor should that education overstretch itself into moral

education. Rather, all who are involved in Higher Education (academic, researcher, student etc.) are engaged in reaching out towards the truth and grasping it. Here then, academic integrity is linked to intellectual virtue (the respect for truth) as opposed to moral virtue (the respect for persons). Academic integrity, as the meta-virtue that informs our quest for this truth, is applicable to students, academics and researchers alike.

The opposite to academic integrity becomes 'academic impropriety', a meta-vice which sits over other intellectual vices, and plagiarism is an instantiation of academic impropriety, linked to intellectual vice (e.g. intellectual dishonesty, intellectual disrespect, disregard for truth, etc). Plagiarism then is neither synonymous with academic integrity, nor is it antithetical to honesty; rather plagiarism is one instantiation of academic impropriety.

One of the most notable contributions of this paper is to link work done on academic integrity in the context of Higher Education, to an established literature base within the philosophy community, including work on virtue ethics, virtue epistemology, and vice epistemology. This linking work will provide conceptual clarity, showing how phenomena like student plagiarism link to concepts like research ethics. To my knowledge, while the philosophical study of intellectual virtue and vice has clear benefits for the study of academic integrity, these disciplines have not yet been explored in conjunction. One possible exception to this is work by the philosopher Ian Kidd, who has expounded the idea of 'epistemically corrupting cultures' (Kidd et al., 2021), or cultures which may damage or erode the intellectual virtue of those subject to that culture. While Kidd has written on this phenomenon in the context of Higher Education (specifically on the topic of the research agenda), he has not, to my knowledge made use of the concept of epistemically corrupting cultures in the context of research ethics and student plagiarism.

I will end this paper by discussing the epistemic corruption within Higher Education, which may contribute to academic impropriety (student and researcher misconduct). Here, I will discuss the idea of 'perverse incentives' in the context of the neo-liberalising university. I will query whether the focus on increasing student numbers, fee-income generation, the metrics and measures of REF, TEF and KEF are likely to support or corrupt the virtues necessary to push forward the purpose of Higher Education; and whether or not those learning and teaching within institutions of Higher Education are facilitated to 'reach out towards the truth and to grasp it'.

References

Baehr, J. S. (ed.) (2015) *Intellectual Virtues and Education: Essays in Applied Virtue Epistemology*. New York: Routledge

Comas-Forgas, R., Lancaster, T., Calvo-Sastre, A. & Sureda-Negre, J. (2021) 'Exam Cheating and Academic Integrity Breaches during the COVID-19 Pandemic: An Analysis of Internet Search Activity in Spain.' *Heliyon* 7:10

Cotton, D. R. E., Cotton,P. A. & Shipway, J. R. (2023) 'Chatting and Cheating. Ensuring Academic Integrity in the Era of ChatGPT.' *EdArXiv*, January 10

Curtis, G. J., McNeill, M., Slade, C., Tremayne, K., Harper, R., Rundle, K. & Greenaway, R. (2022) 'Moving beyond self-reports to estimate the prevalence of commercial contract cheating: an Australian study.' *Studies in Higher Education*, 47:9, 1844-1856

Manika, G. & Goel, A. (2022) 'A Systematic Literature Review on Online Assessment Security: Current Challenges and Integrity Strategies.' *Computers & Security* 113: 102544

Newman, C. J. H. (1996) *The idea of a university* (M. M. Garland, S. Castro-Klaren, G. P. Landow, & G. M. Marsden, Eds.). Yale: Yale University Press

Turri, J., Alfano, M. & Greco, J. (2021) 'Virtue Epistemology.' In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta.

Do My Mindset and Actions Align? Comparing Self-reported Rates of Academic Integrity Departures Among Students Who Differ in Their Attitude Towards Academic Integrity

Kelley A. Packalen

Smith School of Business, Queen's University, Canada

Past academic integrity research has drawn on the theory of moral disengagement to explain students' actions (e.g. Fida et al., 2018; Kim et al., 2022; Packalen & Rowbotham, 2021). The theory of moral disengagement suggests that individuals rely on specific cognitive mechanisms to justify their behaviours and/or reduce their distress when those behaviours do not align with their internal moral standards (Bandura, 1999). In other words, academic integrity research that draws on the theory of moral disengagement starts with the assumption that students have internal moral standards that value academic integrity.

In this study we tested this assumption. Specifically, at the end of an online survey that we administered in Spring 2022 to 1192 undergraduate students in a business program at a single university, we asked students to select which of six mindsets towards academic integrity they felt best represented their own attitude (e.g. selective adherence, tried their best because it was important, GPA was more important). Each of these six mindsets reflected mindsets that students from the same population had informed us in earlier research that they and their peers held (Packalen & Rowbotham, 2022). Importantly, while half of the mindsets identified aligned with an internal moral standard that valued academic integrity, the other half did not, thereby providing us with an opportunity to better understand how common this moral standard was among undergraduate students.

Our preliminary results indicated that 42% of our sample said that they made their best effort to adhere to academic integrity because it was important. Another 25% also indicated an internal moral standard that valued academic integrity, but also explicitly allowed for exceptions through cognitive mechanisms associated with moral disengagement. The remaining third of the population did not hold a mindset that was predicated on valuing academic integrity. Thus, while the majority of students aligned with the starting assumption of moral disengagement a sizable minority did not.

Having established that students held different mindsets, we were also interested in whether these six mindsets correlated with varying levels and/or types of academic integrity departures. To test this research question, we analysed self-reported departures of academic integrity related to the types of assignments that the students had had in the past year. This information had been collected prior to the students identifying their mindset so as to minimize spurious correlation between the two measures.

Unsurprisingly, our preliminary results found that the group with the lowest percent of students who self-reported at least one academic integrity violation was the group who made their best effort to adhere to academic integrity because they felt that it was important. Yet, even among this group 60% self-reported at least one violation in the past academic year. Among this group the four most common types of violations were not completing individual assignments

individually (54% of the group self-reported at least one violation in this category), sharing information on tests between sections (26%), engaging in prosocial behaviours like posting

notes on note-sharing platforms (22%) and completing online quizzes with others (22%). The next lowest group, at 78%, was the group of students who said that their best efforts to adhere were driven by fear. Their four most common violations were collaborating on individual assignments (71%) and online quizzes (38%), engaging in prosocial behaviours (36%) and sharing information on tests (31%).

These results suggested that starting with an internal moral standard that values academic integrity – it's important – provides a more effective mechanism for doing one's best than the external motivator of fear. At the same, however, the external mechanism of fear appeared to be a more effective guard against departing from academic integrity then mindsets that incorporated cognitive mechanisms associated with moral disengagement (e.g. it's important, but not all violations are serious). Notably, in these morally-disengaged groups a full 96% self-reported at least one violation in the past academic year. Among these groups the most common violations were collaborating on individual assignments (93%) and online quizzes (77%), sharing information on tests (71%) and collaborating on take-home and/or un-proctored midterms (70%).

Our study contributes to the growing body of literature that considers not only patterns of academic integrity violations among a population, but also the underlying drivers of those violations. Importantly, by identifying these drivers or root causes we are able to adjust how we deliver assignments (e.g. in-person versus online exams, different versions of assignments between years and tests between sections), proactively speak about academic integrity in a way that emphasizes the benefits or adhering rather

than the consequences of departing from academic integrity, and focus in on adjusting aspects of mindsets that we have determined may be malleable such as dispelling the notion that there are more or less important assignments.

References

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3*(3), 193-209.

Fida, R., Tramontano, C., Paciello, M., Ghezzi, V., & Barbaranelli, C. (2018). Understanding the interplay among regulatory self-efficacy, moral disengagement, and academic cheating behaviour during vocational education: A three-wave study. *Journal of Business Ethics*, *153*, 725-740.

Kim, D., Jesiek, B. K., & Howland, S. J. (2022). Longitudinal investigation of moral disengagement among undergraduate engineering students: findings from a mixed methods study. *Ethics & Behavior, 32*(8), 691-713.

Packalen, K., & Rowbotham, K. (2021). Down the Slippery Slope: Moral Disengagement and Academic Integrity's Grey Areas. In *Academy of Management Proceedings* (Vol. 2021, No. 1, p. 14798). Briarcliff Manor, NY 10510: Academy of Management.

Packalen, K. A., & Rowbotham, K. (2022). Student insight on academic integrity. In *Academic Integrity in Canada: An Enduring and Essential Challenge* (pp. 353-375). Springer International Publishing.

Ethically Significant Moments' as a teaching concept

Christian Simon

Salem College, North Carolina, USA

Ethical reasoning and decision making are highly desired, teachable skills that many employers consider essential to career success (Ames et al. 2017; Englehart and Pritchard 2019; Parks-Leduc 2021). Beset by competing interests, complex pressures, and ongoing stories of lapsed ethics and integrity, the professional world needs university graduates with a strong allegiance to, understanding of, and ability to apply ethical reasoning tools, concepts, and theories (AAC&U 2007). Recognizing this, a growing number of US institutions of higher learning have turned to ethical reasoning as an 'essential learning outcome' for college and university graduates heading into the professional world (Elliot and Karlana 2018; Davis 2018; Linder et al. 2019).

Salem College in North Carolina, USA, a small, private women's college dating back to the 1700s, has launched an initial, five-year, 'Engaging Ethics Plan' focused on integrating and improving ethical reasoning across its academic curricula. The Plan will involve students in courses and campus activities designed to promote their ethical reasoning skills in personal, social, and future professional domains. Importantly, the overall objective of this Plan is *not* to convert students to a particular moral or ethical framework, but to equip them with the skills needed to reason through complex ethical challenges and arrive at informed and well-deliberated ethical decisions.

The Engaging Ethics Plan will assess students' ethical reasoning each semester using formative and summative instruments, and will compare the outcomes at point of graduation with particular interest in 2024 and 2027. Students graduating in 2024 will have been exposed for two years to the emerging emphasis on ethical reasoning in classes and on campus. Students graduating in 2027 will have experienced four years of the structured program, including taking three courses that involve ethical inquiry. When addressing questions in which well-being, virtue, rights, or duties are at issue, students will show awareness of key values, principles, and ideals. They will demonstrate reflective and reasoning skills that are conceptually clear and well informed, effectively articulating their position while acknowledging alternative positions with nuance. Such awareness and skills have the potential to contribute to effective leadership in many social and professional arenas (Ozar 2001).

The Engaging Ethics Plan calls for broad faculty participation in the teaching of ethics coursework and ethical reasoning skills. This presents a challenge as many of the College's faculty are unfamiliar and lack confidence with respect to ethics theory, concepts, and reasoning skills. Ethical reasoning must also allow for substantive differences across disciplines ranging from laboratory sciences to the expressive arts. Therefore, a concerted, three-year effort to train faculty in ethical reasoning has been launched at Salem. External experts in ethics education across college curricula have led workshops with Salem faculty to address multiple considerations, questions, and ongoing discussions around the challenge of teaching ethical reasoning. A new College hire, a bioethicist, has led additional workshops focusing on 'Ethically Significant Moments (ESM),' a concept aimed at expanding faculty engagement with, strengthening their confidence in, and improving their ability to teach ethical reasoning. The concept was developed and first used at Duke University in

workshops run for 200 faculty and staff. Thereafter, it was used at Salem in similarly structured faculty workshops.

In brief, the ESM concept works by asking trainees to identify and deliberate specific 'moments' at which characters in a case study are faced with an ethical decision or choice, and to consider the factors that may sway the characters to make a decision (or avoid making one) with distinctly different outcomes. To date, the ESM concept has been mapped onto a complex case study involving research misconduct at a medical school, with 'characters' ranging from scientists, senior school leaders, several whistle-blowers (including a student), external research sponsors, journal editors, and peer reviewers. ESMs in this case study are relatively easily identified by faculty participants familiar with academic research and publication cultures. Participants are also relatively quick to draw interconnections between individual and organizational attributes, for example, personal ambition coupled with institutional expectations to prolifically attract grant money and publish.

Preliminary feedback from faculty on the concept of ESMs has been positive. Focus on ESMs provides a tangible and concrete entry point into ethical reasoning, which can feel intimidating and abstract. Faculty have commented that ESM-based analysis "feels very structured," "tangible," and "systematic." Faculty have reported that they feel "more confident" and "optimistic" about incorporating ethical reasoning into their own teaching given the ability to "hang" an analysis on ESMs. Plans for the immediate future (March-May 2023) include additional workshops focused on the use of the ESM concept by faculty who teach topics such as racial justice, gender discrimination, climate change, and environmental action. In the longer term (2023-2025), the usefulness of the ESM concept will be assessed alongside other teaching strategies aimed at improving ethical reasoning across curricula and campus life at Salem. Currently, the concept is still undergoing refinement with respect to its feasibility and form of use in different disciplinary and curricular contexts. It is important to assess not just faculty enthusiasm for and likeliness to adopt the ESM concept, but also, crucially, its benefits for student learning.

The first part of the conference presentation will review the background (i.e., rationale) for the Engaging Ethics Plan and its relevant components. The body of the presentation will review the concept of ESMs and its purpose, how it has been used to date, faculty attitudes toward the concept, and plans for its future testing and use. The presentation will conclude with a claim for discussion, namely that the ESM concept adds another, comparatively simple, tool to the ongoing search for effective strategies with which to improve ethical reasoning among higher education faculty, students, and future professionals.

References

Ames, Allison, Kristen L. Smith, Elizabeth R. H. Sanchez, Lori Pyle, Tim Ball, and William J. Hawk. "Impact and persistence of ethical reasoning education on student learning: results from a module-based ethical reasoning educational program." *International Journal of Ethics Education* 2 (2017):77–96

AAC&U (Association of American Colleges & Universities). College Learning for the New Global Century: A Report from the National Leadership Council for Liberal Education and America's Promise. Washington, DC: Association of American Colleges and Universities, 2007.

Davis, Michael. “Moral Theory in Ethics Across the Curriculum?” In *Ethics Across the Curriculum—Pedagogical Perspectives.”* Edited by Elaine E. Englehardt and Michael S. Pritchard, 39-54. New York: Springer, 2018.

Elliott, Deni and Karlana, June. “The Evolution of Ethics Education 1980-2015.” 2018. In *Ethics Across the Curriculum—Pedagogical Perspectives.”* Edited by Elaine E. Englehardt and Michael S. Pritchard, 11-37. New York: Springer, 2018.

Englehardt, Elaine. E. and Michael S. Pritchard. “Introduction.” In *Ethics Across the Curriculum—Pedagogical Perspectives.”* Edited by Elaine E. Englehardt and Michael S. Pritchard, 1-8. New York: Springer, 2018.

Linder, G. Fletcher, Allison J. Ames, William J. Hawk, Lori K. Pyle, Keston H. Fulcher, Christian E. Early. “Teaching Ethical Reasoning: Program Design and Initial Outcomes of Ethical Reasoning in Action, a University-wide Ethical Reasoning Program.” *Teaching Ethics* 19:2 (Fall 2019): 147-169.

Ozar, David T. (2001). Learning Outcomes for Ethics Across the Curriculum Programs. *Teaching Ethics* 2 (1):1-27.

Parks-Leduc, Laura, Leigh Mulligan, Matthew A. Rutherford. “Can Ethics be Taught? Examining the Impact of Distributed Ethical Training and Individual Characteristics on Ethical Decision-Making.” *Academy of Management Learning & Education* Vol. 20, No. 1 (2021): 30–49.

Cross-cultural and perceptual influences on ethical usage of artificial intelligence-based tools in higher education

Sabiha Mumtaz[1], Michael Weiss[2] & Jamie J. Carmichael[2]

[1]University of Wollongong in Dubai, UAE
[2]Carleton University, Ottawa, Canada

This preliminary study provides a balanced argument to the use of artificial intelligence-based tools within higher education. Much like the advent of the calculator and the Internet, the implementation of AI-based tools has resulted in significant benefits. However, boundaries and guidelines need to be clearly established. A starting point is to examine the cross-cultural and perceptual influence on the ethical usage of artificial intelligence-based tools, as our student population represents a diverse global community on our campuses. This research question will be answered through i) the administration of a mixed-methods survey instrument that was distributed to students attending various institutions within four countries; ii) and a structural topic model that analysed textual patterns in the open-ended questions by controlling for the variable of culture.

Introduction

The media coverage about ChatGPT has crossed continents, and has higher education on alert. This research is relevant to higher education as this technology has arrived on our doorsteps without a rule book about how to proceed. Therefore, we need to learn what students know about artificial intelligence-based tools, how they use it or plan to use, and whether the institutional academic integrity culture and students' personal value systems contribute to ethical behavior. One's inherited value system may differ depending on whether one is from a collectivistic or individualistic nation, hypothesizing that sharing cheating behaviors might be more dominant in collectivistic cultures where the mindset is on supporting the whole, for example. Further, these inherited values may be moderated based on the experiences we have collected over a period of time, resulting in development of perceptual frames and attitudes which can influence the way we feel about something and how we react to it. This may be taken as an indication for predicted behavior. For instance, cultural values influence perception, which in turn affects attitudes, which ultimately drives behavior. However, the relationship is not always straightforward, as individuals can hold conflicting attitudes and values, and their behavior may not always align with their attitudes.

There are several risk factors for academic misconduct compiled by Eaton (2021) highlighting recent research such as maturity (Bertram Gallant et al., 2015; Tremayne & Curtis, 2020), awareness of institutional expectations (Eaton, 2021), and student performance as indicated by GPA (Bertram Gallant et al., 2015; Bunn, Caudill, & Gropper, 1992; McCabe & Treviño, 1993). They are supplemented by demographic variables such as gender (Bertram Gallant et al., 2015; McCabe & Treviño, 1993; Perry et al., 1990), personality and behaviour (McCabe & Treviño, 1993; Perry et al., 1990; McCabe, 2016), self-control or regulation (Reisig & Bain, 2016; Tremayne & Curtis, 2020). Furthermore, culture is another significant factor highlighted in academic integrity research. Those who reside in collectivistic cultures might put the wellbeing of the community ahead of their own self interests, and as a result we might see more sharing cheating behaviors (Triandis, 2015). Conversely, those in North America or Europe, traditionally individualistic, might not think twice about cheating in a course that will not add value to their future career.

Method

Our exploratory study focused on the research question: does culture shape students' perception on the ethical use of artificial intelligence-based tools in higher education (RQ1)? To address this guiding research question, the study analyzes data collected from multiple universities located in four culturally diverse countries: Australia, Canada, United Arab Emirates and the United States of America. All the above-mentioned countries are a favored education destination for international students and comprise a diverse student body.

A mixed-methods survey instrument consisting of forty-four questions was designed and distributed to undergraduate and graduate students at the selected universities. The risk factors for academic misconduct, as outlined in the Introduction, provided the foundation for the instrument. The survey addressed five main categories in relation to artificial intelligence-based tools: knowledge, frequency of use, propensity for unethical usage, the influence of the academic integrity culture, and lastly, individual differences. The survey comprised both-close ended and open-ended questions, yielding rich qualitative and quantitative data. The data collection is in process and the emerging results from the survey will be shared during the conference.

In addition to conducting quantitative analysis, structural topic modeling will be used to extract meaningful information from the text-based data generated from open-ended questions by applying the co-variate of culture. Topic modeling is a technique that allows one to summarize a large amount of data with ease but also brings new patterns to the surface by identifying keywords, which are grouped into topics by statistical distribution. Structured topic modeling does this, but differs and is beneficial in social sciences particularly when you want to control for a select variable (i.e., culture in this case) (Roberts et al. 2014). Data for the co-variate was retrieved from the demographics section in the survey, and the topics generated were labelled as either collectivist or individualistic.

Conclusion, Limitations & Future Work

The integration of artificial intelligence (AI) in higher education has created new opportunities for innovation in teaching and learning, but also raises ethical concerns about the use of these tools. These ethical considerations are not only shaped by the technological capabilities of AI, but also by cultural values and individual perceptions. Cross-cultural differences and individual biases can impact the ethical usage of AI-based tools in higher education, leading to potential unintended consequences.

This research could reveal how different cultures view the use of artificial intelligence (AI) in higher education and the ethical considerations involved. Thus, it could inform policies and guidelines around the use of AI in higher education. One potential impact of this research is that it could help universities and other educational institutions to better understand AI-based tools in a way that is inclusive. This could lead to a more equitable approach to AI in higher education, which could ultimately benefit all students.

There are limitations as with any study, as these are preliminary findings, and refinement is required to collect a global sample. Future studies will expand this survey instrument to developing countries, collect longitudinal data as the technology evolves over time, and integrate participatory workshops to provide another layer of data.

References

Bertram Gallant, T., Binkin, N., & Donohue, M. (2015). Students at risk for being reported for cheating. *Journal of Academic Ethics*, 13(3), 217–228, http://dx.doi.org/10.1007/s10805-015-9235-5.

Bunn, D., N., Caudill, S., B., & Gropper, D., M. (1992). Crime in the classroom: An economic

analysis of undergraduate student cheating behavior. *Journal of Economic Education*, 23(3), 197–207,https://doi.org/10.2307/1183222.

Eaton, S., E. (2021). Intentionality, Textuality, and Other Complicating Factors. *Plagiarism in Higher Education. Tackling Tough Topics in Academic Integrity*. Springer.

McCabe, D. (2016). Cheating and honor: Lessons from a long- term research project. *InT. Bretag (Ed.), Handbook of academic integrity*, 187–198. Singapore: Springer Singapore.

McCabe, D., L., & Treviño, L., K. (1993). Academic dishonesty: Honor codes and other contextual influences. *Journal of Higher Education*, 64(5), 522–538, https://www.jstor.org/stable/pdf/2959991.pdf

Perry, A., R., Kane, K., M., Bernesser, K., J., & Spicker, P., T. (1990). Type A behavior, competitive achievement- striving, and cheating among college students. Psychological Reports, 66(2), 459 465. doi:10.2466/pr0.1990.66.2.459.

Reisig, M., D., & Bain, S., N. (2016). University legitimacy and student compliance with academic dishonesty codes: A partial test of the process- based model of self-regulation. *Criminal Justice and Behavior*, 43(1), 83–101,

https://doi.org/10.1177/0093854815611165.

Roberts, M. E., Stewart, B. M., Tingley, D., Lucas, C., Leder-Luis, J., Gadarian, S. K., Albertson, B. & Rand, D. G. (2014). Structural topic models for open-ended survey responses. American journal of political science, 58(4), 1064-1082.

Tremayne, K., & Curtis, G., J. (2020). Attitudes and understanding are only part of the story: Self- control, age and self- imposed pressure predict plagiarism over and above perceptions of seriousness and understanding. *Assessment & Evaluation in Higher Education*, 1–12, https://doi.org/10.1080/02602938.2020.1764907.

Triandis, H. (2015). Collectivism and Individualism: Culture and Psychological Concerns. (2015). International Encyclopedia of the Social & Behavioral Sciences (Second Edition), 206-210.

Can Machine Generated Text Be Detected?

Thomas Lancaster

Imperial College London, UK

With new advantages in large language models appearing regularly, many academics have asked if detecting text generated through systems such as ChatGPT is possible. Several free and commercial solutions claim to be able to detect text in certain situations, but the success metrics they provide are often misleading and there is little independent verification of their claims. It is also unclear how well these systems will work against developments that claim to be able to mimic the style of an individual writer, or against the competitors and successors to ChatGPT that are emerging.

This presentation will provide an overview of the machine generation detection space, intended to allow non-specialists to determine is detection is the right solution for them, as well as how best to engage with the detection solutions on the market. Due to the fast-moving nature of this field, the content below may be updated to best reflect the artificial intelligence and academic integrity space at the time of the conference. Research findings that are current and timely may be incorporated into the presentation as appropriate.

It is anticipated that the presentation will consider the following areas:

- A brief introduction to machine generated text, the type of answers to student assessments that can be produced, the limitations of this technology, and the methods of generation and disguise that make detection difficult.
- The suitability of currently used for checking documents for plagiarism and contract cheating can be used to identify indicators of machine generated text.
- How far current originality checking software (commonly used for plagiarism detection) can be used to identify indicators of machine generated text.
- Potential methods that can be explored for detecting machine generated text, such as lexical analysis, stylistic analysis and forensic file analysis.
- The option offered by commercial watermarking solutions to allow the detection of machine generated text.
- An overview of current open and commercial solutions for finding machine generated text, considering how fit for purpose these solutions are, and the dangers of relying on such solutions.
- Human led approaches for detection, including looking for contextual indicators within the text and assessing students on the content of their work.
- Wider changes to education and assessment that may need to be considered, bearing in mind that detection is only one part of an approach to working with generative artificial intelligence3 that will be needed.

The content of the presentation may be updated as the field develops and improvements to text generation technologies are made available to the public.

Time will be available for questions and wider discussion.

LECTURER, LANGUAGE TUTOR, AND STUDENT PERSPECTIVES ON THE ETHICS OF THE PROOFREADING OF STUDENT WRITING

Nigel Harwood

The University of Sheffield, UK

In UK university contexts, many students have a 'proofreader' check and amend their writing before they submit it for assessment (Harwood et al., 2009; Turner, 2011). 'Proofreading' is the term most used to describe what a third party does to a student's text to be assessed, but previous studies which involved interviewing a selection of proofreaders and/or analysing the changes proofreaders have made to student texts (e.g., Harwood, 2018, 2019; Harwood et al., 2009) have shown that a wide range of changes are made in the name of proofreading. Some proofreaders confine themselves to lighter-touch interventions, focusing on writers' grammar and syntax only, while others are willing to make more substantial interventions concerning writers' argumentation, sometimes rewriting lengthy passages. Furthermore, various parties can act as proofreaders, from paid-for professionals to more informal proofreading by coursemates, friends, family, and/or romantic partners (Conrad, 2020). These various arrangements and the different degrees of interventions carried out in the name of proofreading raise ethical questions for universities in general, and for their academic integrity policies in particular. Should proofreading be debarred, tolerated, or even encouraged? If markedly varying degrees of proofreading are occurring, such practices raise questions of fairness, since a student whose proofreader has substantially rewritten work to be assessed may well ultimately receive a higher mark than another student whose original text was of a similar quality to their coursemate's but whose proofreader was only willing to intervene in a much less substantial manner. Furthermore, a student may submit their work to a proofreader and then immediately submit the corrected text for assessment, learning nothing from the experience; whereas another student may study the proofreader's changes carefully, making the proofreading experience educational. In addition, UK universities' proofreading policies have been found to be vague: Davis (in press) surveyed the policies of fifteen universities, finding that there was only 'limited attention' paid towards defining proofreading. In line with Davis' findings, the advice given to students by my own institution is similarly unsatisfactory: while it does not proscribe proofreading, my university fails to define exactly what kinds of intervention are permitted, instead merely warning students that 'All writing submitted for assessment must be your own work.'

In sum, then, proofreading is an issue which should concern university policymakers, not least since there are varying proofreading practices conducted by various parties, and since current institutional policies are frequently unclear. Seeking the views of disciplinary lecturers, English language tutors, and students as to the ethical appropriacy of different types of interventions would provide policymakers with stakeholder views on which to decide to permit or to proscribe different kinds of proofreading. This presentation duly reports the results of a study which solicited the views of these three groups, utilizing questionnaires and semi-structured interviews to collect data.

Drawing upon editing taxonomies by Harwood (2018), Kruger & Bevan-Dye (2010), and Mossop (2007), my questionnaire featured 20 different authentic proofreader interventions, ranging from lighter-touch (e.g., moving an

apostrophe, correcting a word form) through to heavier-touch changes (e.g., rewriting of longer passages, suggesting ways for the writer to enhance their argumentation). Participants' views on the ethicality of each intervention were solicited via a five-point Likert Scale (*The proofreader's intervention is ethically acceptable in my opinion*: Agree strongly-Disagree strongly), with an Unsure/It depends midpoint. At the start of the semi-structured follow-up interview, respondents were given their questionnaire responses and invited to elaborate upon their reasoning for their ethical judgements expressed in their questionnaire, thereby adding depth and detail to their quantitative responses.

Participants were recruited via a Russell Group university research volunteer list, as well as on the British Association of Lecturers of English for Academic Purposes (BALEAP) mailing list. Most lecturers and all students belonged to the Russell Group institution; most tutors were from other UK institutions. The data set comprised 122 usable questionnaires and 87 interviews. The questionnaires comprised responses from 32 lecturers, 34 language tutors, and 56 students. The interviews were conducted with 24 lecturers, 25 language tutors, and 38 students. Students were a mixture of undergraduates (24) and postgraduates (32); 29 were first language English speakers, 27 were second language speakers.

Kruskal-Wallis tests enabled me to determine whether there were significant differences between the ethical acceptability judgements of lecturers, language tutors, and students for the proofreading interventions. The qualitative data was coded and analysed using thematic analysis.

All three parties felt more minor forms of intervention, such as correcting punctuation and amending word forms, were mostly ethically unproblematic. Post hoc Mann-Whitney U tests revealed no significant differences when comparing lecturers and tutors, but significant differences were found when comparing (a) tutors and students and (b) lecturers and students, particularly with regard to more substantial forms of intervention (e.g., rewriting lengthier passages; improving content and argumentation). Hence students were found to take a more permissive view of these major types of proofreading than lecturers or English language tutors.

In addition, there were outliers within each of the three groups. For instance, although most lecturers were relaxed about the ethics of lighter-touch proofreading, such as amending grammar or syntax, one of the lecturers felt that any type of proofreading of work to be assessed should be debarred because of its potential to affect the mark awarded. The presence of such outliers underscores the difficulty of formulating proofreading policies which would attract consensus across the academy.

Having explained the background and motivation for the study, its design, and its key results, the presentation concludes by discussing the formulation and dissemination of appropriate, research-led proofreading guidelines, and issues for further exploration. This talk will be of interest to various higher education stakeholders involved in the teaching and learning of academic writing, as well as to those responsible for formulating academic integrity policy.

References

Conrad, N. (2020). Proofreading revisited: Interrogating assumptions about postsecondary student users of proofreading. Journal of English for Academic Purposes, 46, 100871. https://doi.org/10.1016/j/jeap.2020.100871

Davis, M. (in press). How do we guide students about proofreading? Institutional policies, study skills advice and teaching. In N. Harwood (ed.), Proofreading and editing in student and research publication contexts. Routledge.

Harwood, N., Austin, L., & Macaulay, R. (2009). Proofreading in a UK university: proofreaders' beliefs, practices, and experiences. Journal of Second Language Writing, 18, 166–190. https://doi.org/10.1016/j.jslw.2009.05.002

Harwood, N. (2018). What do proofreaders of student writing do to a master's essay? Differing interventions, worrying findings. Written Communication, 35, 474-530. https://doi.org/10.1177/0741088318786236

Harwood, N. (2019). 'I have to hold myself back from getting into all that': Investigating ethical issues in the proofreading of student writing. Journal of Academic Ethics, 17, 17-49. https://doi.org/10.1007/s10805-018-9322-5

Kruger, H., & Bevan-Dye, A. (2010). Guidelines for the editing of dissertations and theses: A survey of editors' perceptions. South African Linguistics and Applied Language Studies, 28, 153-169. https://doi.org/10.2989/16073614.2010.519110

Mossop, B. (2007). Revising and editing for translators (2nd ed.). St. Jerome.

Turner, J. (2011). Rewriting writing in higher education: The contested spaces of proofreading. Studies in Higher Education, 36, 427-440. https://doi.org/10.1080/03075071003671786

EXPLORING THE EFFECTS OF PARAPHRASING TOOLS ON STUDENTS' ACADEMIC WRITING SKILLS AND ANY SUBSEQUENT CORRELATION WITH INSTANCES OF PLAGIARISM

Ajrina Hysaj[1], Mark Freeman[2], Salim Razi[2] & Zeenath Reza Khan[1],

[1]University of Wollongong in Dubai, UAE

[2]University of Wollongong, Australia,

[3]Canakkale Onsekiz Mart University, Türkiye,

Introduction

Current circumstances imposed by Covid 19, challenged us to look over at how the potential of existing and evolving technologies can be utilised in the benefit of teaching and learning in our ever-changing world and not against it (Eaton at. al 2020). Few or no study has attempted to scientifically explore and understand the impact of technological advances in students' ability to master academic writing skills in light of integrity. Furthermore, text-processing applications easily found and accessed via the Internet have an array of capacities from text changing to reprocessing phrases of essays and reports and then 'spun', reprocessed or translated. The output from paraphrasing tools, article spinners and translation software can mislead people into thinking that these tools create a new form of original writing (Rogerson & McCarthy, 2017; Prentice & Kinden, 2018; Peters, Besley & Arndt, 2019). These forms of academic dishonestly not only damage the trustworthiness of the higher education (HE) but they also create dishonest employees and a corrupted society. Academic integrity in academia is a set of ethical and moral norms, which include maintaining standards and avoiding intolerable behaviour such as cheating and e-cheating. It has been defined as a commitment made by students and teachers to uphold values such as honesty, trust, fairness, respect and responsibilities in the face of difficulties (Centre for Academic Integrity, 2012; Hysaj & Suleymanova, 2021; Hysaj, Freeman & Khan, 2022; Khan et al., 2023). As a young industry, the HE in the UAE is yet to establish best industry standards and practices across federal, semi-federal and private campuses in the UAE for the use of technology, academic writing and academic integrity. Additionally, although different universities may have differing academic writing curricula, and teaching and learning style, it is believed that the core principles of technology use and academic integrity apply to all students because these principles are multi-dimensional in nature and need to be consistent across campuses especially during circumstances like the ones imposed by COVID 19. This study can create a path towards understanding the use of technological tools in improving academic writing and can serve to teachers, managers and policy makers.

Methodology

The present study contributes to the ongoing research on measuring students' attitudes towards academic writing using technology and plagiarism. The survey questions were adapted from Razi (2015) and were comprised of 10 Likert-scale items was designed to collect the data aimed at analyzing critically how students perceived their existing needs related to academic writing, paraphrasing tools and plagiarism. The survey questions were about academic writing, plagiarism and use of paraphrasing tools. Questions were all related to academic writing tasks used throughout the higher education spectrum, hence the researchers did not see it valid to differ the kind of questions asked to students. The number of the respondents was 206 and students were enrolled in two international universities one in Turkey and the other one in the United Arab Emirates. The choice of the two universities was based on the possibility of applying for the ethics approval since authors worked in these respective universities.

Students were informed about the survey and they could withdraw any point from completing it, making their responses invalid. Questions were only related to academic writing skills, plagiarism and the use of technological tools to write academically. Majority of students were freshman while around 30 percent of them were enrolled in post-graduate degrees at the time of this study. The data was collected in a period of three months through Qualtrics and the respondents were from over 60 nationalities. Respondents were enrolled in a variety of majors and were attending academic writing classes at the time of the study. To ensure clarity of responses, the survey was piloted on a random group of five students enrolled in computer science and business-related degrees. The questions were slightly amended based on the feedback from the pilot survey, and then used to collect the data of this study.

Results

The results illustrated students' understanding of their needs related to academic writing skills. Furthermore, students expressed their understanding of the use of paraphrasing tools and what they considered as acceptable in terms of academic misconduct. The sample size was 206 students and students were enrolled in two different universities; one in the United Arab Emirates and the other one in Turkey. Almost 70 percent of students highlighted the need for formative feedback to improve their academic writing skills and over 60 percent were of the opinion that the use of paraphrasing or translation tools did not violate any rules pertaining to academic integrity. Over 68 percent of respondents self-reported that they preferred to use the paraphrasing tools because of lack of understanding of mechanics of academic writing. Around 75 percent of them saw the value of reading journal articles to write better while over 57% of respondents did not see the link between their academic satisfaction and academic writing. The findings of this study have implications for academic writing skills teachers, who need to focus on creating an inclusive environment that highlights the need to read journal articles for improved academic writing skills. Teachers need to encourage peer-feedback to nurture collaboration and provide formative feedback to students to improve students' academic satisfaction. Finally, institutions need to be open to the idea of supporting students' learning by using technological tools, while emphasizing the need to support students' understanding of mechanics of academic writing as well as the need to explore concepts of research and referencing skills and most importantly maintaining high levels of academic integrity.

Conclusion

In conclusion, it is obvious that paraphrasing and translation tools are technological advances that will be used by students to complete tasks such as academic writing. However, it is important that educators are well aware of the benefits and the drawbacks that these tools represent, so they can subsequently support undergraduates' development of academic writing skills. In other words, students need to be informed about the effective and honest ways of utilizing the tools aiming to facilitate the acquisition of knowledge and not to deceive the anti-plagiarism tools.

References

Bertram Gallant, T., 2018. Part-Time Integrity? Contingent Faculty and Academic Integrity. New Directions for Community Colleges, 2018(183), pp.45-54.

Centre for Academic Integrity, 2012. The Fundamental Values of Academic Integrity pp5-9. [Online] Available at: www.academicintegrity.org/icai/assets/FVProject.pdf [Accessed 15 09 2016].

Davis, S.F., Grover, C.A., Becker, A.H. and McGregor, L.N., 1992. Academic dishonesty: Prevalence, determinants, techniques, and punishments. Teaching of Psychology, 19(1),

pp.16-20.

Eaton, S.E., Crossman, K., Behjat, L., Yates, R.M., Fear, E. and Trifkovic, M., 2020. An institutional self-study of text-matching software in a Canadian graduate-level engineering program. Journal of Academic Ethics, 18(3), pp.263-282.

Hysaj, A., & Suleymanova, S. (2021, July). Safeguarding academic integrity in crisis induced environment: a case study of Emirati Engineering and IT students in a private university in the UAE. In Social Computing and Social Media: Applications in Marketing, Learning, and Health: 13th International Conference, SCSM 2021, Held as Part of the 23rd HCI International Conference, HCII 2021, Virtual Event, July 24–29, 2021, Proceedings, Part II (pp. 236-245). Cham: Springer International Publishing.

Hysaj, A. Freeman, M. and Khan, Z. R. (2022) Teaching Academic Writing Skills: A Narrative Literature Review of Unifying Academic Values through Academic Integrity. Concurrent Sessions 12, 157.

Khan, Z. R. Hysaj, A. John, S. R. and Khan, S. A. (2023, January). Transitional Module on Academic Integrity to Help K-12 Students in the UAE Prepare for Next Stage of Education. In Academic Integrity: Broadening Practices, Technologies, and the Role of Students: Proceedings from the European Conference on Academic Integrity and Plagiarism 2021 (pp. 263-287). Cham: Springer International Publishing.

Prentice, F.M. and Kinden, C.E., 2018. Paraphrasing tools, language translation tools and plagiarism: an exploratory study. International Journal for Educational Integrity, 14(1), p.11.

Pithers, R.T. and Soden, R., 2000. Critical thinking in education: A review. Educational research, 42(3), pp.237-249.

Rankins-Robertson, S., Cahill, L., Roen, D. and Glau, G.R., 2010. Expanding definitions of academic writing: Family history writing in the basic writing classroom and beyond. Journal of Basic Writing, pp.56-77.).

Razi, S., 2015. Development of a Rubric to Assess Academic Writing Incorporating Plagiarism Detectors. Sage Open, 5(2), p.n2.

Rogerson, A.M. and McCarthy, G., 2017. Using Internet based paraphrasing tools: Original work, patchwriting or facilitated plagiarism?. International Journal for Educational Integrity, 13(1), p.2.

THE SUPPLY CHAIN OF CONTRACT CHEATING: THE SUM OF ITS PARTS – A CASE STUDY OF INVESTIGATING ADMISSION FRAUD AND CONTRACT CHEATING AT THE UNIVERSITY OF NEW SOUTH WALE

Darcey Dahl, Julia Lines & Brandon Ng

University of New South Wales, Australia

Context:
Contract cheating, Paper Mills, Degree Mills and Admissions Fraud underpins "The Ecosystem of Commercial Academic Fraud" as research by Eaton & Carmichael (2022) frames it. However, there are few published case studies, that support their proposition as this relationship remains understudied (Eaton & Carmichael, 2023). This presentation will discuss the relationship between the elements of the academic fraud ecosystem from the investigator's perspective at the University of New South Wales (UNSW), Australia - namely admission fraud and contract cheating, as well as the participants and stakeholders in the supply chain. It will also discuss opportunities for institutional and regulatory reforms that can positively disrupt the lifecycle.

At UNSW, the admissions process and the enforcement of academic integrity are independent functions, with different divisional oversight, and rarely intersect on a regular basis. This siloed structure has likely impacted the institution's ability to establish a link between contract cheating and admission fraud. Prior to our investigation that we will discuss, the link between admissions fraud and contract cheating at UNSW had not been established because admissions fraud was, up until mid-2019, investigated by a separate Division and usually occurred at the time of application for admission or within a student's first semester of enrolment.

What we know here at UNSW is that cheating in admission applications is real, is happening at scale, and is a 'hi viz' integrity red flag for our institution, our higher education sector in Australia, and for education providers internationally. Falsifying education credentials is not new; however, digitisation has monetised fake degrees and commercialised, on an industrial scale, fraud in admission applications.

We consider this is also an opportunity for a call to action by all in the academic integrity space, particularly those whose role is to investigate fraudulent student conduct in the higher education sector. Admission fraud and contract cheating are internationally recognised high risks for any institution. It threatens the integrity of any merit based, equal opportunity admissions process. It also threatens the reputation of our degrees and graduates and more significantly, it can threaten the public health and safety of the local, national and international communities we serve.

Main message:

To identify and demonstrate the link between admissions fraud and contract cheating.

The presentation will showcase a procedure-driven, investigative approach to detection and the outcomes of a large cluster of admissions fraud and its relationship to contract cheating. We will evaluate the lessons learned for our team and the institution. We will also provide recommendations from an investigator's perspective.

The case study:

The UNSW experience indicates that the connection between contract cheating and admissions fraud is strong. We will showcase what we knew, what we detected and what actions were taken when our team was referred an admission fraud allegation in March 2021 involving an international student who submitted a fraudulent academic transcript, including certificate and/or diploma in support of their admission application to an undergraduate program. The fraudulent academic documentation was issued by a Sydney based Registered Training Organization (RTO) involved in a prior admission fraud case.

We therefore decided it would be prudent to broaden our investigation to include any student who was admitted using academic documents from this RTO dating back to 2016. Our investigation ultimately detected a cluster of 43 international students who were offered admission between 2017-2019 on the basis of their submitted fraudulent documentation. Of these 43 students, a total of 40 students subsequently enrolled at UNSW. Four of the students had already been permanently excluded because of findings of contract cheating. Misconduct investigations were initiated against the remaining 36 students resulting in substantiated misconduct findings of admissions fraud against all and a significant proportion were also found to have contract cheated. The typical outcome for these students was permanent exclusion from UNSW and a fail grade for any course where contract cheating was substantiated.

The investigation process at UNSW is underpinned by the principles of procedural fairness. All 36 students were provided with the relevant evidence supporting the allegations of misconduct and offered an opportunity to respond. The evidence included back-to-source checks we conducted on the academic transcript, including certificate and/or diploma with the issuing RTO that confirmed the academic documents were not genuine. The investigations into contract cheating followed the Australian Tertiary Education Quality and Standards Agency guidelines (https://www.teqsa.gov.au/preventing-contract-cheating/how-respond-contract-cheating-detection-and-management) and included the review of document metadata, analysis of Turnitin authorship reports, academic opinions, and analyses of student accesses to the learning management system, Moodle, to detect unusual login activity.

Of the 36 students, 24 had completed more than a year of study. Because the students had completed courses, we commenced concurrent investigations into contract cheating to determine whether those courses had been legitimately passed and could remain on their academic record. This resulted in amending our Standard Operating Procedures for contract cheating investigations to incorporate a back-to-source check on admissions documents.

Recommendations:

- It is recommended that: Standard Operating Procedures incorporate a back-to-source check on admissions documents when investigating contract cheating. Likewise, when investigating admissions fraud, a concurrent contract cheating investigation should occur if any course has been completed.
- An independent credentialing platform for tertiary academic documents such as My eQuals Australia (https://www.myequals.edu.au/) is utilised where verification of official, certified qualification records is easily accessible to verifiers.
- Collaboration between Divisions responsible for admissions processes and enforcement of academic integrity is improved to share information and trends about dishonest conduct by students and other stakeholders such as education recruitment agents.

References

Eaton, S. E., & Carmichael, J. (2022). The Ecosystem of Commercial Academic Fraud. *Prism.ucalgary.ca*. http://hdl.handle.net/1880/115324

Eaton, S.E., Carmichael, J.J. (2023). Fake Degrees and Credential Fraud, Contract Cheating, and Paper Mills: Overview and Historical Perspectives. In: Eaton, S.E., Carmichael, J.J., Pethrick, H. (eds) Fake Degrees and Fraudulent Credentials in Higher Education . Ethics and Integrity in Educational Contexts, vol 5. Springer, Cham. https://doi.org/10.1007/978-3-031-21796-8_1

Student Academic Integrity Champion Model: proactive steps towards campus-wide efforts in building a culture of integrity

Zeenath Reza Khan, Sheelagh Wallace, Akshita Bhatia & Neha Hemnani

University of Wollongong in Dubai, UAE,

Academic integrity has been defined as "compliance with ethical and professional principles, standards, practices and consistent system of values, that serves as guidance for making decisions and taking actions in education, research and scholarship" (Tauginiene et al., 2018, p7). Academics globally most often lament over the lack of student commitment to academic integrity (Packalen & Rowbotham, 2022). Misconducts that students engage in range from exam cheating, plagiarism, contract cheating, fraud, falsification of data, misrepresentation and so on (Khan, 2014; UOW, 2023). Statistics over the years have shown more or less over 60% of students studied self-report to have cheated, plagiarised or engaged in some form of academic misconduct over the years (ICAI, 2023). Plenty of studies refer to students' perceptions of academic integrity (Reedy et al., 2021) or policies (Anohina-Naumeca, Birzniece & Odineca, 2020) or misconducts (Awosoga et al., 2021) and how their attitudes can influence their own potential behaviour during an assessment (Vučković et al., 2020). Many studies have advocated for various reactive ways to mitigate the concerns with detection and penalty (Goosney & Duda, 2009), using edtech such as text-matching tools or online proctoring software and so on that seem to unfortunately widen the gap between institutions, teachers and students, thus working adversely (Freedman, 2004; Zwagerman, 2008). Studies have also highlighted how proactive actions such as designing training modules (Benson et al., 2019), developing communities of practice (Reedy et al., 2021), policy reviews (Akbar and Picard, 2019; Stoesz et al., 2019), designing workshops, handbooks, rethinking assessments more can help in building a culture of integrity on campus (Chrisensen Hughes & McCabe, 2006; Khan, 2014; Morris, 2018; Fudge et al., 2022; Priya & Tuffnell, 2022).

Students as advocates for academic integrity

Students are the best advocates for academic integrity on campus and developing a culture of integrity can often be the best deterrent to academic misconduct issues (Khan, 2021). However, it is very difficult to engage students in conversation, activities, or initiatives on academic integrity, given the "mistrust, political turmoil and questionable role models" in recent years (Khan, Mumtaz & Rakhman, 2019, p 101). Sporadic studies point to the need to incorporate all stakeholders when looking for a solution (McCabe & Pavela, 2000; Hendershott et al., 2000; Eury & Trevino, 2019; . Packalen and Rowbotham (2022) make an attempt to include student voice by asking students advice on actions for students, faculty and administrations to improve culture of integrity. These focus on the attitude of students and staff, pedagogy, assessment practices, grading, time management and so on (Packalen & Rowbotham, 2022). However, there remains a gap in the literature on how campuses can engage students to become champions of academic integrity.

Developing SAICM model

This paper extends an earlier poster presentation from 2021 to record a snapshot of efforts by one campus in the Middle East that has systematically worked to make students partners in the conversation on academic integrity. The research question to answer was "how can campuses adopt holistic approaches that will encourage students to become active participants in advocating for academic integrity values on campus?"

A longitudinal study has highlighted the campus' proactive efforts in adopting a holistic effort to develop a culture of integrity (Khan, Priya & Tuffnell, 2022). The study traces the efforts which began with the faculty initiating participation of the campus to join International Day of Action Against Contract Cheating in 2016 due to need to begin awareness campaigns against contract cheating (Khan et al., 2020). Khan et al. (2020) traced the systematic efforts to involve students in an incremental manner to involve them as organising members of such events. However, as addressed in Khan, Mumtaz and Rakhman (2019), students who came forward faced a number of barriers and challenges. To understand these better, the authors initiated open discussion sessions with student volunteers to better understand these challenges and barriers. Figure 1 illustrates the concerns.

Drawing on literature that extensively focuses on engaging students as active learners such as Pittaway (2012), and the Student-Centered Learning (SCL) derived from constructivist theory and self-determination theory that focus on students as the drivers of their own learning process (Lee & Hannafin, 2016), authors trace how the campus went beyond events to engage students in a variety of conversations and efforts, to help overcome the identified barriers and challenges, such as -

- Policy review in 2017 (this included focus group discussion with variety of stakeholders including students)
- Grassroot implementation of policy in 2018 (this included debate of students over policy changes which were then presented to Director of Registrars, custodian of the policy)
- Research activities (such as participation, internship, assistantship, facilitating data collection, co-authoring presentations, co-designing studies between 2018 - 2023)

These were collectively used to develop a Student AI Champion Model (SAICM) that the authors have implemented at the campus. SAICM also draws on the CARE learning design framework that helps teaching and learning become more student-driven (Kostoulas-Makrakis & Makrakis, 2017) and the three dimensions of engagement identified by Ahshan (2019) and Leslie (2020), that is, student-student, student-content and student-faculty to make the model holistic, ensuring all stakeholders and their influence/engagement with students is noted and accounted for.

The paper aims to provide details of the above methodology used, the frameworks that informed the process of developing a model and finally the successful model with its steps that can be easily adopted to any campus, which include not only awareness activities, but also policy revisions, student ambassador programs and triage clinics for the faltered.

References

Akbar, A., Picard, M. (2019) Understanding plagiarism in Indonesia from the lens of plagiarism policy: lessons for universities. *Int J Educ Integr* 15, 7 (2019). https://doi.org/10.1007/s40979-019-0044-2

Anohina-Naumeca, A., Birzniece, I. & Odiņeca, T. (2020) Students' awareness of the academic integrity policy at a Latvian university. *Int J Educ Integr* 16, 12 (2020). https://doi.org/10.1007/s40979-020-00064-4

Awosoga, O., Nord, C.M., Varsanyi, S. et al. (2021) Student and faculty perceptions of, and experiences with, academic dishonesty at a medium-sized Canadian university. *Int J Educ Integr* 17, 24 (2021). https://doi.org/10.1007/s40979-021-00090-w

Benson, L., Rodier, K., Enström, R. et al. (2019) Developing a university-wide academic integrity E-learning tutorial: a Canadian case. *Int J Educ Integr* 15, 5 (2019). https://doi.org/10.1007/s40979-019-0045-1

Christensen Hughes, J. M., & McCabe, D. L. (2006). Understanding academic misconduct. *Canadian Journal of Higher Education*, 36(1), 49–63.

Eury, J. L., & Treviño, L. K. (2019). Building a culture of honor and integrity in a business school. *Journal of Management Education*, 43(5), 484–508.

Freedman, M.P. (2004) A tale of plagiarism and a new paradigm, Phi Delta Kappan, 85(7), pp. 545-548.

Fudge, A., Ulpen, T., Bilic, S. et al. (2022) Does an educative approach work? A reflective case study of how two Australian higher education Enabling programs support students and staff uphold a responsible culture of academic integrity. *Int J Educ Integr* 18, 5 (2022). https://doi.org/10.1007/s40979-021-00099-1

Goosney, J. & Duda, D. (2009). *Avoiding the plagiarism pitfall: preventing plagiarism in undergraduate research*, Memorial University of Newfoundland. [Online] Available URL: http://ojs.acadiau.ca/index.php/AAU/article/viewFile/74/41. Accessed July 24, 2012

Hendershott, A., Drinan, P., & Cross, M. (2000). Toward enhancing a culture of academic integrity. *Journal of Student Affairs Research and Practice*, 37(4), 270–281.

ICAI (2023) *Facts and Statistics.* International Centre for Academic Integrity (ICAI). https://academicintegrity.org/resources/facts-and-statistics

Khan, Z. R. (2014), *Developing a factor-model to understand the impact of factors on higher education students' likelihood to e-cheat*, Doctor of Philosophy thesis, School of Information Systems and Technology, University of Wollongong, 2014. https://ro.uow.edu.au/theses/4545

Khan, Z. R., Mumtaz, S. and Rakhman, S.S. (2019). Tracing the journey of two students' trajectory to becoming advocates of integrity – a case study. *Proceedings from 5th International Conference Plagiarism Across Europe and Beyond and 3rd International Conference Shaping Ethics in Academia and Society*. European Network for Academic Integrity. Lithuania. https://academicintegrity.eu/conference/proceedings/2019/KhanMumtazSalma01.pdf

Khan, Z.R., Hemnani, P., Raheja, S. et al. (2020) Raising Awareness on Contract Cheating – Lessons Learned from Running Campus-Wide Campaigns. *J Acad Ethics* 18, 17–33 (2020). https://doi.org/10.1007/s10805-019-09353-1

Khan, Z.R. (2021). *Including students in building a culture of integrity*. ETICO UNESCO-IIEP. Available Online https://etico.iiep.unesco.org/en/including-students-building-culture-integrity

Khan, Z.R., Priya, J. & Tuffnell, C. (2022) Culture of integrity – institutional response to integrity during COVID19. *Int J Educ Integr* 18, 27 (2022). https://doi.org/10.1007/s40979-022-00118-9

Lee, E., & Hannafin, M. J. (2016). A design framework for enhancing engagement in student-centered learning: own it, learn it, and share it. *Educational Technology Research and Development*, 64(4), 707–734.

Leslie, H. J. (2020). Trifecta of Student Engagement A framework for an online teaching professional development course for faculty in higher education. *Journal of Research In Innovative teaching & learning.* 13(2). 2020. 179-173.https://www.emerald.com/insight/content/doi/10.1108/JRIT-10-2018-0024/full/pdf?title=trifecta-of-student-engagement-a-framework-for-an-online-teaching-professional-development-course-for-faculty-in-higher-education

Morris, E. J. (2018). Academic integrity matters: Five considerations for addressing

contract cheating. *International Journal for Educational Integrity*, 14(15), https://doi.org/10.1007/s40979-018-0038-5

McCabe, D., & Pavela, G. (2000). Some good news about academic integrity. Change, 32(5), 32–38.

Packalen, K., and Rowbotham, K. (2022). Student Insight on Academic Integrity. In: Eaton, S.E., Christensen Hughes, J. (eds) *Academic Integrity in Canada.* Ethics and Integrity in Educational Contexts, vol 1. Springer, Cham. https://doi.org/10.1007/978-3-030-83255-1_18

Pittaway, S. M. (2012). Student and Staff Engagement: Developing an Engagement Framework in a Faculty of Education. *Australian Journal of Teacher Education*, 37(4). http://dx.doi.org/10.14221/ajte.2012v37n4.8

Reedy, A., Pfitzner, D., Rook, L. et al. Responding to the COVID-19 emergency: student and academic staff perceptions of academic integrity in the transition to online exams at three Australian universities. *Int J Educ Integr* 17, 9 (2021). https://doi.org/10.1007/s40979-021-00075-9

Reedy, A.K., Wurm, P.A.S., Janssen, A. et al. A community of practice approach to enhancing academic integrity policy translation: a case study. *Int J Educ Integr* 17, 12 (2021). https://doi.org/10.1007/s40979-021-00080-y

Stoesz, B.M., Eaton, S.E., Miron, J. et al. Academic integrity and contract cheating policy analysis of colleges in Ontario, Canada. *Int J Educ Integr* 15, 4 (2019). https://doi.org/10.1007/s40979-019-0042-4

UOW (2023). *What is academic misconduct*? University of Wollongong. Governance. https://www.uow.edu.au/about/governance/academic-integrity/students/misconduct/

Vučković, D., Peković, S., Blečić, M. et al. Attitudes towards cheating behavior during assessing students' performance: student and teacher perspectives. *Int J Educ Integr* 16, 13 (2020). https://doi.org/10.1007/s40979-020-00065-3

Zwagerman, S. (2008) *The scarlet P: Plagiarism, panopticism, and the rhetoric of academic integrity,* College Composition and Communication, 59(4), pp. 676-710

Investigating university policies pertaining to academic ethics and integrity in Bulgaria: a study protocol

Irena Vassileva[1] & Mariya Chankova[2]

[1]New Bulgarian University - Sofia

[2]South-West University - Blagoevgrad

The research project "The gravity of academic plagiarism in the perception of scholars, students, and science policy makers in Bulgaria" aims to address the numerous ramifications of academic integrity breaches affecting students, scholars and policy makers in Bulgaria. The project's ultimate goal is to contribute to a shift in the general perceptions of the seriousness of plagiarism offenses through a combination of educational and legal practices. Part of the pilot investigation is conducting an analysis of existing university policies pertaining to academic ethics and integrity, teaching and learning practices, the transparency of applying those practices, as well as the responsibility of all parties concerned. We will examine the policies of 50 higher education institutions in Bulgaria, which are officially recognized by the National Evaluation and Accreditation Agency (www.neaa.government.bg). This pilot investigation is the first stage of a comprehensive state of the arts review of plagiarism-related issues in Bulgaria, and it draws from previous findings of non-uniform perceptions of what qualifies as plagiarism offenses (Vassileva & Chankova, 2019). The interest in university policy concerning academic integrity is without precedent for the Bulgarian context, researchers focusing on individual cases of academic integrity breaches instead and having published exclusively in Bulgarian.

The study follows the methodological steps outlined in Bretag et al. (2011) in locating and coding the relevant policy documentation. The analysis starts from the assumption that policy should be based upon the principles of transparency, respect, and responsibility, and that these principles are directly related to the quality of academic output in both students and academics. The results will allow the project team to identify what categories underlie the academic policy standards in Bulgarian universities and whether they relate to teaching practices. A particular question of interest is the following: given the reported dissatisfaction with existing anti-plagiarism systems in Bulgarian research and educational institutions (Vassileva & Chankova, op. cit.) and the subsequent creation of a Ministry of Education and Science-based Commission for Academic Ethics, how does institutional policy align in respect to this centralized effort to streamline issues of academic integrity?

References

Bretag, T., Mahmud, S., Wallace, M., Walker, R., James, C., Green, M., ... & Patridge, L. (2011). Core elements of exemplary academic integrity policy in Australian higher education. *International Journal for Educational Integrity*, *7*(2), 3-12.

Vassileva, I., & Chankova, M. (2019). Attitudes towards plagiarism in academia. *English Studies at NBU*, *5*(1), 135-163.

THE CURRICULUM DILEMMAS IN FOSTERING FUTURE CITIZENS TO COLLABORATE AND TO COMPETE.

Charlotta Rönn

Linnaeus University, Sweden

In Sweden, likewise in many other countries, there is an enhanced focus on assessment for learning as well as assessment of learning, on individual pupils' results, grades, and national testing. In the last Swedish curricula (Swedish National Agency for Education, 2011, 2022) it is stated that pupils are to take a personal responsibility for their academic success, and to develop an eagerness for lifelong learning. Moreover, they are to learn to e.g. compose texts on their own in writing assignments given by the teachers. Simultaneously, the aims of public education are according to the curricula that pupils are to develop democratic values and solidarity. When it comes to writing assignments, the curricula as well as in the comment material to the Course Plan (e.g. Swedish National Agency for Education, 2017) stresses that pupils should be given opportunities to co-write texts together with peers, give feedback to peers on their texts as well as to receive feedback from peers on their own texts. However, it is not stated in the curricula how these co-composed texts are to be assessed and/or graded.

The background for this presentation is a more comprehensive study from a Swedish municipal lower secondary school of which some parts have been published (Rönn, 2022; Rönn and Pettersson, 2023). Within the frames of an ethnographic study with an outspoken pupils' perspective, the researcher conducted observations in one class during several months in Year 8 (14-year-olds) with a focus on how they collaborated informally with classmates during lessons in several school subjects. The aim was to explore how they assisted peers in low-voiced conversations out of the teachers' supervision. One year later, when the pupils were in 9th grade (the last year of compulsory school in Sweden) the researcher interviewed pupils in the same class, in total 18 interviews on their view of schoolwork, grades, assisting peers, and future plans. At this stage, no interviews with the teachers were conducted, but at the school Urkund (now Ouriginal) was used for plagiarism control of the pupils' writing assignments. The aim of the study was to explore and provide an account of what informal social strategies pupils apply in dealing with formal individual assignments as well as to try to understand how these strategies could be understood in a formal school context heavily relying on formative assessments of writing assignments and summative assessing of the individual pupil, such as e.g. tests and the National Tests. The results showed that pupils, out of the teachers' supervision, since Year 6 (12 year-olds) had applied various informal social strategies. Some examples of this were that: a) high achieving pupils in the class, on requests from peers, forwarded pictures of their completed writing assignments to classmates to be reformulated in the classmates' "own words", b) pupils could swap computers behind the teachers' back and write original texts for peers, and to c) pupils logged into classmates' Google Classroom-accounts and wrote original texts for peers or make comprehensive proofreading of the peers' texts. The aim with these informal social strategies was, according to the pupils, to achieve better grades with little efforts for some of the pupils. When the pupils started forwarding pictures of completed assignments in Year 6, they did not understand that they were not meant to do this (Year 6 is the first year in Sweden that pupils are graded). It is important to keep in mind that this is a generation who are accustomed to share pictures of everything in their everyday life. It was not until Year 8 that they started to understand that the exercises were not meant to be completed this way, but then it was difficult for them to stop using these informal social strategies. One finding was that the pupils considered sharing pictures and reformulating peers' writing assignments

rather unproblematic. The pupils were loyal to their (close) friends, and few pupils regarded their strategies in a bigger context of solidarity, of equity of grades locally and nationally. Since the findings of the study have been reported back to the teachers and headmaster of the school, they have changed their way of working. For example, only texts which are written during lessons at school are now graded; the pupils can prepare for the writing at home but the writing has to take place at school. The teachers at the school have inspired other schools to follow their example. This has led to that the parents to pupils at one school in another part of the municipality, where most parents are well-educated high-income earners, complain loudly when they are no longer alowed to help their children with writing assignments for assessments.

With a starting point in the findings from the more comprehensive study, this presentation will focus on dilemmas in the curricula; how the aim of solidarity and the fostering of democratic citizens are to coexist with an enhanced focus on individualization, competing and grading. It also problematises what future citizens are to become of pupils who, without the teachers' awareness, apply the above mentioned informal social strategies; thus pupils who

- rely on informal contacts to compose formal assignments,
- recycle peers' arguments within a text instead of making their own opinions/voices heard
- rely on the willingness/time of peers to fulfill the tasks given by the teachers,
- do not consider it problematic that they are graded individually for the achievement of someone else
- miss out years of exercises in composing their own texts

According to the curricula, public education should foster future citizens. In practice, there seem to be a dilemma in the tension between pupils' collaboration (and in particular pupils' informal social strategies in composing texts together with peers without the teachers' awareness) and individual achievements for assessment in the competition for elevated grades which will be highlighted in the presentation. Moreover, how can teachers help pupils to an awareness about some of the problematic aspects of the pupils' informal social strategies on both an individual as well as societal level – as in becoming future citizens.

References

Rönn, C. (2022). Pupil's informal social strategies in a Swedish compulsory school – What pupils do and say, out of sight of the teachers, while managing written individual assignments. *Educational Review.* Advance online publication. https://doi.org/10.1080/00131911.2022.2054955

Rönn, C., & Pettersson, D. (2023). Swedish students' everyday school life and teachers' assessment dilemmas: peer strategies for ameliorating schoolwork for assessment. *Educational Assessment, Evaluation and Accountability*. Advance online publication. https://link.springer.com/article/10.1007/s11092-022-09400-3

Swedish National Agency for Education (2017). *Kommentarmaterial till kursplanen i svenska 2011: reviderad 2017*. [Comment Material to the Course Plan in Swedish 2011: revised 2017] Stockholm: Skolverket.

Swedish National Agency for Education. (2011). *Läroplan för grundskolan, förskoleklassen och fritidshemmet* [Curriculum for the Compulsory School, Preschool Class and School-age Educare]. Skolverket.

Swedish National Agency for Education. (2022). *Läroplan för grundskolan, förskoleklassen och fritidshemmet* [Curriculum for the Compulsory School, Preschool Class and School-age Educare]. Skolverket.

Conference Abstracts – Day 2

Parallel Session 3 |Room 1

Students as Leaders – Developing an Academic Integrity Ambassador Program

Claudia Gottwald

Division of Academic and Student Engagement, University of Adelaide, Australia

Fostering a culture of integrity in student learning, teaching, and research plays a significant role in the success of higher education institutions internationally (Miron et al., 2021). At the same time, cultivating academic integrity in universities calls for collaborative approaches with students (Zivcakova & Wood, 2015; TEQSA, 2022). A Students as Partners approach is one way to emphasise the importance of establishing and maintaining collaboration between staff and students, as it promotes a more engaged and supportive learning environment and improves the quality of education and institutional practices (Mercer-Mapstone et al., 2020). Utilising student leaders is a practical method to raise awareness, set a positive example, build trust and create a safe empowering space for peers to discuss their concerns (Edwards et al., 2022; Richards et al., 2016). Indeed, empowering student leaders or 'ambassadors' as partners can benefit the university's reputation and can voice a student's perspective to institutional policy-makers, while providing valuable peer-to-peer student support (Hoffman et al., 2008; Holmes et al., 2021).

In this session, we will highlight how we have developed a student leadership program aimed at promoting a culture of academic integrity through engaging student volunteer ambassadors in peer-to-peer and educational activities. Piloted in 2021, the program underwent a major re-design in 2022 with a focus on student participation in the program development process.

Attendees of this session will be able to learn how to set up a volunteer Academic Integrity Ambassador program with a focus on student involvement. Our presentation will highlight innovative ideas for activities and resources student volunteers can drive themselves, along with sharing first-hand knowledge about the challenges that come with the development of an ambassador program. The session will outline the steps undertaken to set up the program including benchmarking, recruitment, marketing and training, and give examples of some of the resources that have been developed with students. Our focus on co-creation has significantly fostered the enthusiasm and motivation of the student volunteer ambassadors, and the presentation will show how staff and students work together to support student orientation, Academic Integrity Awareness Week, the internal annual staff conference, student-led peer-to-peer workshops, students panels for staff and students, staff – student planning workshops, a marketing and social media strategy, information stalls with donuts, quizzes, educational comic strips and more.

Furthermore, the value of attracting a range of volunteer personalities from diverse programs, year levels, faculties and cultural backgrounds will be discussed in relation to the strength that this diversity gives the program by enabling the ambassadors to support one another and complement each other's strengths and experience.

In addition, key learnings made throughout the development process of this program, challenges experienced along the way and possible future directions of this program will be discussed.

Since the recruitment of the ambassadors, the program has gone beyond any expectation initially put forward for this program. The success of this program is attributable to the miraculous efforts and innovative activities driven by this committed team of student volunteers. The participation in this program gives our volunteers a sense of belonging and a feeling that their efforts are being recognised and valued.

Our ambassadors act as role models and the student voice of academic integrity and are as a link to fellow students and staff at our University. Without a doubt, the work of the ambassadors is not only educative for their peers, but also contributes to the development of deeper understanding and clearer communication between students and academic staff. Ambassadors undertake orientation session program visits and class visits at the beginning of each semester to raise awareness of the importance of academic integrity and to make fellow students aware of the resources available. Staff around the institution are very impressed by the enthusiasm and commitment shown by this team of volunteers.

The Academic Integrity Ambassador program supports the strategic goals of our institution – most significantly the Academic Integrity Strategic Plan – in the key areas of policy understanding, skill development, and prevention of academic integrity breaches. It is an exemplary program in terms of student involvement and the current trend in higher education focusing on students as active partners, and has been well received as best practice internally and within the wider higher education sector. Within one year, the success of this program has led to knowledge-sharing and adoption of similar programs by other institutions.

References

Edwards, M., Williams, E. & Akerman, K. (2022). Promoting academic resilience through peer support in a new pre-registration nursing programme. *British Journal of Nursing*, *31*(22), 1144–1148.

Hoffman, S. J., Rosenfield, D., Gilbert, J. H. v & Oandasan, I. F. (2008). Student leadership in interprofessional education: benefits, challenges and implications for educators, researchers and policymakers. *Medical Education*, *42*(7), 654–661.

Holmes, K., Paull, M., Haski-Leventhal, D., MacCallum, J., Omari, M., Walker, G., Scott, R., Young, S. & Maher, A. (2021). A continuum of university student volunteer programme models. *Journal of Higher Education Policy and Management*, *43*(3), 281–297.

Mercer-Mapstone, L., Dvorakova, L. S., Matthews, K. E., Abbot, S., Cheng, B., Felten, P.,... & Swaim, K. (2020). A systematic literature review of students as partners in higher education. International Journal for Students as Partners, 4(1).

Miller, A., Shoptaugh, C. & Parkerson, A. (2008). Under reporting of cheating in research using volunteer college students. *College Student Journal*, *42*(2), 326–340.

Miron, J., Eaton, S. E., McBreairty, L. & Baig, H. (2021). Academic integrity education across the Canadian higher education landscape. *Journal of Academic Ethics*, *19*(4), 441–454.

Richards, D., Saddiqui, S., White, F., McGuigan, N. & Homewood, J. (2016). A theory of change for student-led academic integrity. *Quality in Higher Education*, *22*(3), 242–259.

TEQSA. (2022). *Self-evaluation and benchmarking checklist for academic integrity*, Tertiary Education Quality and Standards Agency, October 2022.

https://www.teqsa.gov.au/sites/default/files/2022-10/self-evaluation-benchmarking-checklist-web.pdf

Zivcakova, L. & Wood, E. (2015). Examining instructional interventions: encouraging academic integrity through active learning approaches. I. Li & Y. Zhao (Eds). Exploring learning & teaching in higher education. (pp. 191-205). Springer

Plagiarism and Writing in the Age of Artificial Intelligence

Erhan Şimşek
University of Duisburg-Essen, Germany

Artificial Intelligence (AI) has made great advances in recent years. Nowadays, computers can discover meaning, analyse and synthesise data, reason, or learn from previous experience. We are gradually moving into an era in which machines can simulate human intelligence processes almost perfectly. This has a huge impact on various fields, and higher education is no exception.

Significantly, AI makes assessing student writing a major challenge for instructors. Software such as ChatGPT can generate academic texts about any topic. Moreover, they can generate results in such a way that no two essays on the same topic are the same. Considering how fast AI companies improve their results, the generated texts will probably be even more human-like in the future.

Theoretically, it is possible for students to submit AI-generated results for credit. This makes attempts at plagiarism detection a major challenge. Plagiarism software companies have already started working on detecting AI-generated texts. And yet, as long as AI can generate unique content, they are not likely to come up with an effective solution soon.

In the face of this problem, universities contemplate solutions that go as far as disqualifying writing assignments as tools of assessment. One possible scenario is that universities will turn to written or oral exams (Kelly, 2022), making student essays and research papers a thing of the past.

This scenario is not only unhelpful but also unrealistic. For one thing, composing narratives is an essential component of modern life. It is a skill that individuals need throughout their lifespan. Accordingly, it is only natural that universities emphasise composition skills and assess students based on their written work, especially in the humanities departments. Instead of putting writing aside, universities will have to rethink writing assignments.

In this presentation, I will offer two alternative ways of creating narrative assignments that will help instructors get plagiarism-free results.

One way of rethinking writing assignments is to leave the conventions of academic writing behind and turn to experimental forms of writing. Tellingly, AI generates content that conforms to academic writing conventions such as thesis statements, research questions, and topic sentences. Any prompt that asks for an academic essay leads to texts that follow a clear and linear academic structure with an introduction, main body and conclusion. AI cannot really produce academic writing outside this structural grid.

In that sense, AI produces writing that universities prefer and propagate through institutions such as writing centres. However, essays with a thesis statement or a topic sentence are not the only way to produce academic writing. It is possible to create meaningful academic narratives outside the above-mentioned structural grid. And it has a tradition at the university.

It is well known that Continental philosophers such as Heidegger and Derrida wrote in a highly obscure manner. Still, there is academic content in what they say. A sentence such as “the nothing itself noths” by Heidegger (Inwood, 1999, p. 271), for instance, means arguably that human existence can only be understood through negation, which is a major vision of Continental philosophy. Although not apparent at first sight, Continental texts have intelligible content. This can be a path that instructors can lead students to in the age of AI, especially in the humanities departments.

Multimedia narratives can be another option. They are stories that combine text with video, images and audio to tell a story or express an idea. Developing technology has made producing videos, podcast and images affordable and practical for many students. So, instead of giving an assignment such as "write an essay about *The Great Gatsby,*" instructors can require students to prepare a multimedia narrative about *The Great Gatsby*. Students will then express their take on the novel with textual, visual and aural tools. It is true that AI can generate videos or images (in addition to text); however, it cannot ensure the semantic integrity of the whole narrative. Moreover, it is easy to require students to be a part of the video or podcast (e.g. as an interviewer) and make sure that students really fulfil their part.

Both alternatives lead to similar learning outcomes as traditional assignments. For instance, one of the common university learning outcomes is heightened critical thinking. Critical thinking is indispensable for well-reasoned judgments. For well-reasoned judgments, students need to immerse themselves in "the endeavor to know how and to what extent it might be possible to think differently" (Foucault, 1990, p. 9). In other words, students need to find ways of looking at alternative ideas, which experimental writing facilitates. Embracing ethical values can only be possible by first questioning them, and experimental narratives pave the way for deconstructing entrenched thinking, which is needed for the former.

Multimedia narratives, on the other hand, facilitate growth on a much more pragmatic level. They allow students to broaden their communicative repertoire across various media. Workplaces of the future will need students who can work with a broad array of digital tools. If students are required to practice with podcasts and videos and write for the digital world, they will be more employable (Rifkin et al., 2010, p. 115). Moreover, having a unique voice is important in a world of participation, and with multimedia narratives, universities can act as venues for experimentation regarding individual agency.

I will conclude my talk by pointing out the pedagogical implications of these experimental forms for writing instructors. Significantly, the repertoire of accepted forms of academic writing will inevitably grow at universities. Both higher education institutions and instructors need to be more open to alternative forms of student writing. Of course, to assess student assignments and (do justice to what they assess), instructors will need to spend more time and energy than they do on traditional writing assignments. But this is a problem that needs to be handled at a higher level — at the level of university administration and even educational policy.

References

Foucault, M. (1990). *The Use of Pleasure: Volume 2 of the History of Sexuality* (R. Hurley, Trans.). Vintage Books.

Inwood, M. (1999). Does the Nothing Noth? *Royal Institute of Philosophy Supplements, 44*, 271-290. doi:10.1017/S1358246100006767.

Kelly, M. (2022, Dec. 9). Universities should bring back oral exams. *The College Fix*. https://www.thecollegefix.com/bring-back-oral-exams/

Rifkin, W., Longnecker, N., Leach, J., & Davis, L. (2010). Blogging biology & podcasting physics: Authentic learning via student creation of new media. *Proceedings of The Australian Conference on Science and Mathematics Education*, 113-115. https://openjournals.library.sydney.edu.au/IISME/article/view/4655/5466

Academic Integrity in Everyday Life at German Universities

Debora Weber-Wulff

HTW, Berlin, Germany

German universities should not have academic integrity issues. The rules for good academic conduct should be very clear to all participants. The “Guidelines for Safeguarding Good Research Practice” are published online (Deutsche Forschungsgemeinschaft, 2022). Every university has appointed an ombud for good scientific practice, and there is generally a specific university policy that outlines what is to be done when academic misconduct is suspected.

So all is well with respect to academic integrity in Germany? Not really. On a regular basis, I am asked about cases or suspicions of academic misconduct. Most often the main question that is being asked is: "What can be I do?" In this talk I will outline the problems and propose actions that need to be taken. The academic integrity problems are not just restricted to one group within the university, although often the focus is on issues of student plagiarism or cheating. There is not just one root cause for the issues, but various aspects of the complex structure of a university exacerbate the situation.

Students who need to write an essay or a lab report often have poor time management skills and are unsure how they are expected to write. They may ask fellow students, but instead of speaking with their professors or tutors, they will often turn to the internet. Here they are quickly shown ads from companies that want to "help" them, and offer various forms of essay writing services for a fee. Some even turn to artificial intelligence systems to do the writing for them, or to "polish" their writing. Just as we use spelling checkers today, it will soon be normal to run ideas by a system that attempts to write something useful for you, although the current state of these systems is such that they often generate good-sounding nonsense.

Teachers who suspect that their students have plagiarized or cheated are often unsure what exactly they should do. On the one hand, they wish that there was some "smart" software system that would validate their suspicions. On the other hand, they are often unsure as to the exact procedures that they need to follow. Even asking colleagues is often little help, as they are not sure, either. There was perhaps an email that was sent around once years ago explaining what to do, but that email is now unfindable. They suspect, though, that they will have to invest a lot of extra work to find and document the plagiarisms for the examination board. So some may take the easy way out and assign the lowest passing grade.

Young researchers, especially in biomedical fields, have many issues. Some are told to ignore outlier values, or to include people as authors on their papers who did not actually contribute to the research. In particular doctoral advisors want included on all papers, on the grounds that it was their idea or that they organized the funding. Or they simply publish the work of the young researchers as their own. Authorship issues such as these are troubling, although clear rules for authorship exist, for example the ones from the International Committee of Medical Journal Editors (International Committee of Medical Journal Editors, 2022, II.A.2). But very few dare to say anything, because their goal is to finish their dissertations or their post-docs and they don't want to jeopardize their careers by questioning a powerful person in the field.

Even **administrators** are at times unsure of the procedures to follow. So many German university administrators seem to avoid taking steps that might lead to a student suing them, although in cases of plagiarism most German universities

have an excellent track record of winning court cases. There are, of course, exceptions, but as long as the university procedures are followed, the university, not a court, determines what is plagiarism. The correct procedures are, however, often lost in a pile of ordinances.

Of course, the ***Ombuds*** have issues as well. Many are saddled with the job in addition to their own teaching and research duties, and they are often not given needed resources. There is often a lack of institutional memory about how to deal with various kinds of cases. Universities in the USA will often have an academic integrity department with up to a dozen full-time employees. They assure that the rules are applied fairly to all cases that come up and are not dependent on the procedural knowledge of the individual instructors.

The **top leadership of a university** may be aware that there are allegations of misconduct against a member of the faculty. But if this person is responsible for obtaining much external funding, or produces many publications and/or finished doctoral students, the temptation is to ignore the issues, since the financing of an institution is often determined by things that are countable, not the quality of the research.

So what can be done? There are four levels of action that need to be taken.

1. The easiest way to deal with academic integrity violations is to prevent them from happening! There needs to be a culture of "we don't tolerate academic misconduct here" that is part of the everyday life of the university.
2. In order to detect issues of plagiarism or the use of artificial intelligence systems by students, it is important to carefully read what is being submitted. Check a selection of references: Do they exist? Are they in our library? Are they correctly cited? Are they even used in the text? When reading one can make a note of changes in style or strange misspellings. After the text has been read, a few words (usually 3-5 nouns) can be entered into a search machine to see if a potential source pops up (XXX, 2014, p. 81). The more valuable a text is, the more time would be spent on this task. Text-matching software can, of course be used, but the limitations of such systems must be taken into account (Foltýnek et al., 2020).
3. Once it has been determined that academic misconduct has occurred, an appropriate sanction must be decided on. For young students this is perhaps a "teaching moment", a great possibility to teach why and how we reference the work of others. Dealing with academic misconduct of faculty is much more complicated. It is not, however, a solution to just avoid dealing with the issue. It must be made clear that it is not to be tolerated and depending on the issue, disciplinary hearings may need to be commenced.
4. Once a sanction has been decided upon, there has to be oversight that it is actually applied. There are a number of cases in Germany where there is no way to see that a doctorate has been withdrawn for plagiarism: the theses are still available, unmarked, online and in libraries.

The rules are well-defined, and they have been so for decades. This is not something that has just recently been invented. The problem is that they must be filled with life. They have to be known, understood, and practiced throughout the academic world.

References

Deutsche Forschungsgemeinschaft. (2022). Guidelines for Safeguarding Good Research Practice. Code of Conduct. https://doi.org/10.5281/zenodo.6472827

Foltýnek, T., Dlabolová, D., Anohina-Naumeca, A., Razı, S., Kravjar, J., Kamzola, L., Guerrero-Dib, J., Çelik, Ö., & XXX. (2020). Testing of support

tools for plagiarism detection. *Int J Educ Technol High Educ 17,* 46. https://doi.org/10.1186/s41239-020-00192-4

International Committee of Medical Journal Editors. (2022, May). Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals. https://www.icmje.org/icmje-recommendations.pdf

XXX. (2014). *False feathers: A perspective on academic plagiarism*. Heidelberg: Springer.

ANTI-CORRUPTION COMPLIANCE IN HIGHER EDUCATION: FOREIGN EXPERIENCE AND UKRAINIAN PRACTICE

Yuliia Lomzhets, Mariia Tsypiashchuk & Oksana Bronevytska

Association of Legal Clinics of Ukraine, Ukraine

Ninety one percent of Ukrainians consider corruption a serious or very serious problem (National Agency on Corruption Prevention, 2020). The legislation of Ukraine defines corruption as the actions by a person who has been granted official powers, or has powers associated with opportunities, to obtain unlawful benefit or receipt of such benefit or receipt of a promise or offer of such benefit for themself or others, or respectively the promise, offer or granting of an unlawful benefit to the person or upon their request to other persons or entities, with a view to persuade the person to unlawfully use the official authorities or associated opportunities granted to them (Ukrainian Government, 2014).

Corruption in Ukraine permeates all spheres of life, and education is no exception. Society is convinced that corruption in higher education is a systemic phenomenon, and the administration of modern higher education institutions (hereinafter the HEI) are not able to combat corruption risks. (Kremen, 2016)

In 2017, the 'Regional Center for European Integration Projects', NGO conducted a study of the transparency of the anti-corruption policies of Ukrainian HEIs. Anti-corruption programs of 165 universities were researched, and anti-corruption programs were posted on the websites of 71 of them. Their average level of transparency in the respective index of anti-corruption policy is 40.27%, while for other institutions (who have not published their anti-corruption programs) is 28.72% - thus lower for those who, probably, have no anti-corruption programs (National Agency on Corruption Prevention, 2019).

Current Ukrainian legislation urges every state university to implement risk management, as well as to have an anti-corruption commissioner (Derkach et al., 2022). Anti-corruption policies and actions are also an integral criterion for the accreditation of free (financed from the relevant budget) educational programs. At the same time, no local comprehensive study has been conducted so far to assess the quality of the organization of this process. So, this opens the prospect of a plethora of important questions that need to be answered, e.g.:

1. how does the university educate its students and faculty, including academics and administrators, to understand corruption and practice a zero-tolerance approach to corruption?
2. whether and by what methods are the assessment of corruption risks carried out?
3. who are the anti-corruption commissioners appointed at the universities and do they undergo high-quality specialized training?
4. what algorithms of actions should be applied given the corruption risks/violations that are being detected?
5.

According to our analysis, the need to raise the quality of corruption prevention measures in higher education is beyond any reasonable doubt. At the same time, students, as consumers of educational services, know neither the mechanisms for protecting their rights, nor the basics of academic integrity, because there is no mechanism for interaction between students and anti-corruption commissioners in HEIs.

All the above-described issues are indicative of insufficient understanding at the national level of the state of anti-corruption work within HEIs, poor quality training of commissioners, and, as a result, the overall ineffectiveness of such work. To resolve these deficits requires a systematic study of the ongoing situation, enhancing the competence of anti-corruption commissioners, building up and incorporating a zero-tolerance anti-corruption culture. None of these elements has been systematically implemented yet.

For these reasons, from June 2021 to February 2022, the Association of Legal Clinics of Ukraine

(ALCU) in partnership with the National Agency on Corruption Prevention (NACP), with the support of the USAID Support to Anti-Corruption Champion Institutions (SACCI) Program, implemented a large-scale project, "Anti-corruption compliance in HEIs: from identifying risks to overcoming them". Project goals were:

- Promotion of integrity and good anti-corruption practices in higher education.
- Analysis of corruption risks in higher education.
- Research of the profession of anti-corruption commissioner of a higher education institution.
- Establishing interaction between anti-corruption commissioner and students.
- Formation of the anti-corruption experts in the field of higher education pool in all regions of Ukraine.

Key objectives of the project were to search for the most typical corruption risks affecting higher education and to create a catalog of these risks.

For this purpose, the research group of the project:

- Analysed freely available open sources (judicial registers, online procurement systems, information from mass media, social networks, previous national and foreign research on corruption risks in higher education).
- Conducted a national survey among the students of higher education institutions from all over Ukraine.
- Carried out in-depth corruption risks monitoring and assessment in five pilot universities, based on adapted NACP Methodology on Corruption Risks Assessment.

As a result, an the expanded register was formed, including 55 corruption risks in four main areas of higher education environment: educational process, scientific activity, administration, and external partnerships of higher education institutions. The top 25 most typical corruption risks in higher education of Ukraine were singled out from the expanded register (Tsypiashchuk et al., 2022).

Due to the full-scale armed aggression of the Russian Federation against Ukraine in February 2022 and the introduction of martial law, the Ministry of Education and Science of Ukraine was forced to change the rules for admission to educational institutions, after the admission campaign of the 2022-2023 academic year. Therefore, at the end of the project, another task arose – the need to assess corruption risks deriving from the newly introduced legislation that regulated the admission campaign to higher education institutions for 2022 (Ukrainian Government, 2022). For this purpose, in May-July 2022, the Association, jointly with the NACP, with the support of the EU Anti-Corruption Initiative (EUACI), implemented a project to identify and overcome corruption risks associated with the admission campaign. The resulting detailed analysis (Tsypiashchuk & Lomzhets, 2022), led to anti-corruption training for universities' anti-corruption commissioners to minimize corruption risks during the admission campaign, and a communication campaign using video and a Telegram chat-bot.

It is obvious, that the full-scale invasion brought new dimensions of corruption risks in higher education. No deep research on the current situation has been conducted, but based on the prior findings, we may reasonably assume that the growing number of students and faculty who are staying abroad, distant learning, etc. – all these factors do influence the prospects of possible corruption within the universities.

Thus, the project team managed to identify and describe the main corruption risks in higher education in Ukraine. However, this was insufficient to create and implement practical tools to prevent corruption in higher educational institutions. The next stage is to study experiences in other parts of the world of implementing useful and effective anti-corruption compliance tools in higher education and the involvement of students in this process. Currently the Association of Legal Clinics of Ukraine is conducting the relevant research and activities.

Thus, at the European Conference on Ethics and Integrity, the ALCU's team will present the results

of a study of the best compliance practices in foreign and Ukrainian universities.

References

Derkach, S., Halai, V., Datsko, K., & Fedorenko, A. (2022). Anti-corruption commissioner of a higher education institution: an analytical study. *National Agency on Corruption Prevention, Association of Legal Clinics of Ukraine.* https://legalclinics.in.ua/wp-content/uploads/2022/05/Antykoruptsiy-nyy-_upovnovazhenyy-_zakladu_vyshhoi-_osvity_analitychne.pdf

Kremen, V. (2016) National report on the state and prospects for the development of education in Ukraine. *National Academy of Pedagogical Sciences of Ukraine.* https://mon.gov.ua/storage/app/media/nrk/Analitychni-materialy/7-natsionalna-dopovid-pro-stan-i-rozvitok-osviti-v-ukraini.pdf

National Agency on Corruption Prevention. (2019). *National Report Concerning the Implementation of Anti-Corruption Policy Principles in 2017.* https://nazk.gov.ua/wp-content/uploads/2019/06/Natsdopovid-2017.pdf

National Agency on Corruption Prevention. (2020). The Cabinet of Ministers approved the draft Anti-Corruption Strategy for 2020-2024. (2020, September 16). *NACP Website. Latest News* https://nazk.gov.ua/uk/novyny/kabinet-ministriv-shvalyv-proyekt-antykoruptsijnoyi-strategiyi-na-2020-2024-roky

Tsypiashchuk, M., Datsko, K., & Lomzhets, Y. (2022). Corruption risks in higher education. TOP 25: Strategic analysis of corruption risks. *National Agency on Corruption Prevention, Association of Legal Clinics of Ukraine.* https://legalclinics.in.ua/wp-content/uploads/2022/06/TOP_25_koruptsiy-ni_ryzyky_u_vyshhiy-_osviti.pdf

Tsypiashchuk, M., & Lomzhets, Y. (2022). Corruption risks of the 2022 admission campaign. Strategic analysis of corruption risks. *National Agency on Corruption Prevention, Association of Legal Clinics of Ukraine.* https://nazk.gov.ua/wp-content/uploads/2022/06/Ryzyky-vstupnoi-kampanii-.pdf

Ukrainian Government. (2014). Law of Ukraine on Prevention of Corruption. (Ukr). https://zakon.rada.gov.ua/laws/show/1700-18#Text

Ukrainian Government. (2022). Procedure for admission to higher education in 2022. (Ukr). https://zakon.rada.gov.ua/laws/show/z0487-22#Text

Ethical approval Vs. compliance of basic research ethics with common sense: A situation analysis

Shiva D Sivasubramaniam

University of Derby, UK

Researchers are always keen to obtain appropriate ethical approval for their projects, not because it is a requirement but to show their commitment to ethical research. However, how many of them (or their assistants) are abiding the basic ethical principles? This presentation will attempt to explore this question in relation to some examples of reported behaviours within STEM and Non-STEM areas.

'Ethical research conduct' does not mean simply following guidelines given in the respective ethical approval. It is a commitment to behaving ethically in the right spirit, respecting fellow researchers, research participants, the health, and safety rules/guidelines and above all respecting the public who simply trust the research findings. (Sivasubramaniam et al, 2021a; 2021b; Mandal , Acharya, and Parija, 2011). Most STEM related research involving humans are either conducted about, with or for the people, their tissues and/or the data/information obtained from them. Alternatively, non-STEM research provides information/inventions to expand people knowledge, activities, and attitudes. Some non-STEM research also involves human beings as subjects. In both cases abidance of the basic ethical principles is essential to maintain accountability and minimise any risks and mishaps (Snezhko and Coskun, 2019; National Academies of Sciences, Engineering, and Medicine 2017). Therefore, the word "compliance" of ethics should be considered beyond ensuring the ethical laws and regulations (or avoid the situations being accused of research misconducts)(Ethics - H2020 Online Manual - European Commission n d; Lyle et al, 2012). It is all about establishing a self-ethics code, treating the research participants collaborators/subordinates by giving attributes they deserve. However, due to external pressures ("publish or perish" culture), researchers are being forced to become self-centred and failing to abide the basic guidelines of ethical research. In this thought-provoking presentation, some recent examples of exemplary as well as appalling research behaviours will be shared. These examples were gathered through the author's individual research project on exploring 'ethical and behavioural changes through informal dialogue' with a representative sample of principle investigators and their research assistants from Europe, The Middle East, and South-East Asia. The findings are collated in the form of narrative discussion/qualitative analysis.

The information collected so far shows most of the participants were really concerned about the ethical guidance that are linked to the respective ethical approval documentations for their projects. Those who are carrying out externally funded research are abiding by the expectations of their funding bodies and associated governmental organisations. There are monthly 'checks' on documentations, procedural updates, and health & safety. These were audited by institutional representatives and reported accordingly. However, considering the basic ethical behaviours, the author has received an alarming number of claims of unethical and/or immoral practices. In this study, the author has attempted to grouped these into following categories, some of which have been reported previously. However, considering that these practices are still in place, it is a real concern. Examples of bullying of junior researchers such as unrealistic expectations, ambiguous instructions, silent treatments, using confidentiality statements against reporting any health and safety issues, using tenure clauses to threaten to terminate research contracts have all been seen. On the other hand, there were incidences of those with established 'reputations' undermining their collaborators by selective authorships

(demanding senior authorship in impactful journals and offering less impactful journal authorships to collaborators), using own gold access institutional agreements for open access privileges to demand senior authorships, 'ethical dumping' in international research through which the scientist from underprivileged countries to carry out unethical experiments has also been observed. Interestingly, most of these malpractices are going on whilst the project specific (and or funding related) compliance and/or expectations are fully addressed and audited. These finding will be elaborated and further discussed this presentation.

This presentation will also recommend/propose institutional measures to stop/minimise these malpractices. It will show some examples of institutional framework such as continuous independent review of research practices, via research mentors who would liaise with the PI and fellow workers to ascertain general compliance. Overall, the expectation is this presentation will highlight some practical difficulties in achieving a meaningful basic ethical behaviour (or a lack of abidance on following basic ethical rules for research) amongst researchers. As for addressing these issues, institutions should establish/impose predefined basic ethics rules within their workplaces. Most importantly aid confidentially report any basic unethical practices in their research environment.

References

H2020 Online Manual - European Commission nd.

https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ethics_en.htm

Lyle K, Weller S, Samuel G, et al Beyond regulatory approaches to ethics: making space for ethical preparedness in healthcare researchJournal of Medical Ethics Published Online First: 20 June 2022. https://doi.org/10.1136/medethics-2021-108102

Mandal J, Acharya S, Parija SC. Ethics in human research. Trop Parasitol. 2011 Jan;1(1):2-3. https://doi.org/10.4103/2229-5070.72105.

National Academies of Sciences, Engineering, and Medicine; Policy and Global Affairs; Committee on Science, Engineering, Medicine, and Public Policy; Committee on Responsible Science. Washington (DC): National Academies Press (US); 2017 Apr 11. http://dx.crossref.org/10.17226/21896

Sivasubramaniam, S., Dlabolová, D.H., Kralikova, V. et al. Assisting you to advance with ethics in research: an introduction to ethical governance and application procedures. Int J Educ Integr 17, 14 (2021a). https://doi.org/10.1007/s40979-021-00078-6

Sivasubramaniam, S.D., Cosentino, M., Ribeiro, L. et al. Unethical practices within medical research and publication – An exploratory study. Int J Educ Integr 17, 7 (2021b).

https://doi.org/10.1007/s40979-021-00072-y

Snezhko S and Coskun. A Liability or Ethics? The Real Value of Compliance. *In* The Circular Economy and Its Implications on Sustainability and the Green Supply Chain. *Eds:* Ulas Akkucuk 2019. https://doi.org/10.4018/978-1-5225-8109-3.ch011

Ethical Implications of Research and Research Capacity-Building Collaborations between Higher Education Institutions in the Global North and Global South

Dimitar Angelov

University of Coventry, UK

The ethics of research collaborations (UKRI, 2023) is essential for maintaining research integrity as it is at the core of knowledge production, authorship and, hence, the academic prestige accorded to scientists and scholars. Most UK funders and publications outlets, such as academic journals, have formal requirements which stipulate the roles and responsibilities of co-investigators and co-authors, respectively, to ensure the ethical rigour of research practices. Internationally, the principles of ethical research collaborations have been formulated by policy documents such as the *Montreal statement on research integrity in cross-boundary research collaborations*, which seeks to ensure equity among stakeholders in sharing management responsibilities, relationship responsibilities and outcomes of research (WCRIF, 2013). However, without a reliable way of ensuring compliance with these principles, nationally and internationally, they remain a set of aspirational values rather than hard-and-fast rules.

Collaborations where partners are based across higher-income (Global North) and lower-income countries (Global South) (Jiménez, 2019; Lees, 2021) are fraught with further ethical problems. North-South collaborations are characterised by a range of asymmetries caused by the structural inequalities that exist between countries with different socio-economic and political status. In a typical North-South research collaboration, there are often unspoken hierarchies in terms of decision-making, work allocation and input, which affect not only the way new knowledge is produced, but what counts as new knowledge, in the first place. For instance, due to their perceived junior status, South-based partners are often expected to carry out routine research activities, such as data collection and data processing, whilst the more sophisticated work of data analysis, conceptual framing and theorising is carried out by North-based partners (Holmarsdottir et al., 2013). Such a division of labour creates a risk to research integrity as it entails an appropriation of Southern expertise and agency and/or distorting them through a Northern interpretative lens (Akena, 2012; Sithole, 2016). This is not to say that Southern partners are always and completely disenfranchised in North-South collaborations. However, the stakes of the global system of knowledge production, dissemination and validation are decidedly not in their favour (Last, 2018), which makes it that much harder for them to be positioned as equal research collaborators in line with existing policies and guidelines.

According to Martin and Griffiths (2012), a possible solution to the North-South power imbalance, and by extension the research integrity challenges in this context, can be found in Bhabha's 'Third Space' theory. Following this view, international partners can successfully build a relationship based on mutual respect, if they move beyond their respective cultural spaces and into a neutral, 'third' space in which 'new meanings and understandings can emerge' (2012, p. 921). The underlying assumption here is that a culturally neutral 'third space' will be a level playing field that can successfully redress the imbalances and unequal power dynamics between partners in the Global South and partners in the Global North. A similar emphasis on dialogue and reciprocity can be seen in the *Cape Town*

statement on fostering research integrity through fairness and equity, which advocates mutual respect, shared accountability and indigenous knowledge recognition as leading principles of research collaborations between high-income and low/middle-income countries (WCRIF, 2022).

However, the practical implementation of 'third-space' dialogue and the *Cape Town statement* recommendations, to mention but a few examples of possible solutions to North-South research imbalances, remain fraught with problems. The very idea that a culturally neutral dialogue can be achieved through a simple conscious decision to 'let go' of one's 'culture' ignores the complexity of how different cultural strata underlie and shape worldviews, understandings, and practices, including as part of higher-education collaborations. The socio-economic inequalities between North and South partners are equally hard to negotiate, and therefore continue to have a profound impact on how project work can be carried out, despite efforts from individual stakeholders.

This presentation expands on the point of view of a researcher developer who reflects on their international practice through the lens global education and researcher development theory. It is prompted by what the author perceives as an increased urgency in redressing the inequalities between higher-education sectors internationally in the context of recent debates on decolonising academic work (see Bhambra et al., 2018, and Bhambra et al., 2019), and a growing body of scholarship on research ethics (Helgesson & Bülow, 2023).

The presentation will seek to achieve three main aims. Firstly, to make a case for the need to review research integrity through the lens of North-South research collaborations literature (part of this discussion will be dedicated to the definition and justification of the concepts of 'Global North' and 'Global South'). Secondly, the presentation will raise awareness of the practical and epistemic challenges researchers are likely to face when they attempt to implement equitable research partnerships across asymmetrical socio-economic and cultural higher-education contexts. Thirdly, it will present a set of principles, drawn from the author's practice and the literature on global higher- education collaborations, which researchers can consider and adapt in their own disciplinary practice when trying to ensure research integrity in relevant international contexts. The ultimate goal here to highlight the individual agency all academics have to effect incremental change in their own work as researchers, practitioners, administrators, or policy makers, and thereby mitigate the structural and systemic inequalities of global academia.

References

Akena, F. A. (2012). Critical Analysis of the Production of Western Knowledge and Its Implications for Indigenous Knowledge and Decolonization. *Journal of Black Studies*, *43*(6), 599-619. http://dx.doi.org/10.1177/0021934712440448

Bhambra, G., Gebrial, D., and Nişancıoğlu, K. (Eds.). (2018). *Decolonising the university*. Pluto Press. Bhambra, G. K., Last, A., Mayblin, L. and Tilley, L. (2019) Global social theory: Building resources. *Area*, 51 (4), 1-4. https://doi.org/10.1111/area.12479

Helgesson, G., and Bülow, W. (2023) Research integrity and hidden value conflicts. *Journal of Academic Ethics*, *21*, 113–123. https://doi.org/10.1007/s10805-021-09442-0

Holmarsdottir, H. B., Desai, Z., Botha, L.R.,

Breidlid, A., Bastien, S., Mukoma, W., Ezekiel, . J., Helleve, A., Farag, A. I., and Nomlomo, V. (2013). Compare Forum: The idea of North-South and South-South collaboration. *Compare: A Journal of Comparative and International Education*, *43*(2), 265–286.

https://doi.org/10.1080/03057925.2013.765274

Jiménez, J. C. (2019) Ignoring the Brandt Line? Dimensions and implications of the North-South divide from today's policy perspective. In H. M. Grimm (Ed.), *Public policy research in the Global South: A cross-country perspective*. Springer (pp. 17-26)

Last, A. (2018). *Internationalisation and interdisciplinarity: Sharing across boundaries?* In G. Bhambra, D. Gebrial, and K. Nişancıoğlu (Eds.), *Decolonising the university*. Pluto Press (pp. 208-230)

Lees, N. (2021). The Brandt Line after forty years: The more North–South relations change, the more they stay the same? *Review of International Studies*, *47*(1), 85–106. https://doi.org/10.1017/S026021052000039X

Martin, F., & Griffiths, H. (2012). Power and representation: a postcolonial reading of global partnerships and teacher development through North-South study visits. *British Educational Research Journal*, *38*(6), 907–927. http://dx.doi.org/10.1080/01411926.2011.600438

Sithole, B. (2016). My knowledge, your knowledge, whose knowledge is it? Reflections from a researcher's journey through universities in North and South. In H. K. Adriansen, L. M. Madsen, & S. Jensen (Eds.), *Higher education and capacity building in Africa: The geography and power of knowledge under changing conditions*. Routledge (pp. 171-192).

UK Research and Innovation (UKRI). (2023). *Research integrity*. https://www.ukri.org/what-we-offer/supporting-healthy-research-and-innovation-culture/research-integrity/

World Conferences on Research Integrity Foundation (WCRIF). (2013). *Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations.* https://www.wcrif.org/guidance/montreal-statement

World Conferences on Research Integrity Foundation (WCRIF). (2022). Cape Town statement on fostering research integrity through fairness and equity. https://www.wcrif.org/guidance/cape-town-statement

Aligning Policy, Pedagogy and Practice: The Language of Academic Integrity and Assessment at Birmingham City University

Shivani Wilson-Rochford

Birmingham City University, UK

The importance of assessment and academic integrity is never underestimated as it is pivotal for student success – both go hand in hand. Inclusive assessment introduces ways in which assessment can be student led, co-created, flexible and authentic and this also includes how we talk about important concepts such as academic integrity. Honesty and ethical work is produced through the demonstration of good academic practice but this can only be successfully exhibited if the students and teaching staff have an appropriate level of knowledge and education on the key concepts of academic integrity. Universities have a responsibility to uphold academic integrity in order to protect the reputation of the university and to maintain a high standard of delivering a high quality education. Furthermore, they have a role to play in developing student perceptions and understandings of academic integrity (Bretag et. al, 2013). Although much has been written around the policies and procedures detailing the consequences of academic misconduct and the urgency of deterring academic honesty, the focus around the education of academic integrity has been somewhat neglected (McGowan, 2005).

Positive language around the 'learning of integrity' in assessment briefs can place a stronger emphasis on accessing resources around the education and importance of academic integrity rather than focusing solely on the consequences. The rationale for my work as an Education Developer at Birmingham City University has come from a need to educate students around key skills associated with academic integrity rather than solely focusing on consequences (with early intervention being key). Additionally, finding the appropriate balance between learning about academic integrity and making students aware of policies and practice is important.

In this session, I will detail some of the work that has been done to date at Birmingham City University (BCU) on academic integrity and how I am continuing to work to promote the language of learning and inclusive education in teaching, learning and assessment. These workshops have been designed for staff across all faculties at BCU and are designed to encourage discussion in key areas such as assessment but also, to achieve impact through resource development and collaboration. I will be drawing on workshops that have been delivered around the areas mentioned above, along with some feedback from staff as to how academic integrity can work to promote a positive approach to academic practice. I have provided a series of workshops to all faculties around academic integrity. These sessions have been delivered to over 400 staff and have covered some of the principles surrounding the education of academic integrity and the language that is used to promote it. One of the themes that came out of these workshops is the lack of consistency around how academic integrity is viewed in assessment.

One of the other key focuses of BCU is around awarding gaps and how we can contribute to the reduction of this. We need to think about how inequalities can be addressed across the HE sector to a more inclusive curricula (Advance HE, 2021). In line with this, I will be outlining how my work is contributing to this subject and in particular, how assessment and integrity can play a vital role in ensuring all students have the same opportunity to achieve the best possible outcome at the end of their degree programme. The presentation is

aimed at anyone who is involved in teaching and materials development, but also for those who are in a support capacity e.g. academic writing. The expected impact of this session will be to raise awareness across the sector on how assessment can be designed to ensure all students have an equal opportunity to study. Additionally, delegates will be able to see how academic integrity is being fed through assessment design and how talking with students in the classroom can play an important part in promoting inclusivity and ensuring fair practice for all. The originality and innovation of the session will be demonstrated through the fact that academic integrity has become a core focus of the work around assessment (Bretag et. al. 2013) in a way that aligns policy, practice and process at Birmingham City University (East, 2009).

References

Advance HE. (2021) 'Advance HE launches 'Ethnicity awarding gaps in UK higher Education in 2019/20' report. *Advance HE*. Available from https://www.advance-he.ac.uk/news-and-views/advance-he-launches-ethnicity-awarding-gaps-uk-higher-education-201920-report [accessed 22 Feb 2023]

Bretag, T., Mahmud, S., Wallace, M., Walker, R., McGowan, U., East, J., Green, M., Partridge, L. and James, C. (2013). 'Teach us how to do it properly!' An Australian Academic Integrity Student Survey. *Studies in Higher Education* < http://dx.doi.org/10.1080/03075079.2013.777406>

East, J. (2009). Aligning Policy and Practice. An Approach to Integrating Academic Integrity. *Journal of Academic Language and Learning* 3(1) available online https://journal.aall.org.au/index.php/jall/article/view/66 [09/05/2022]

McGowan, U. (2005). Academic Integrity: An Awareness and Development Issue for Students and Staff. *Journal of University Teaching & Learning Practice.* 2 (3) available from https://ro.uow.edu.au/cgi/viewcontent.cgi?article=1033&context=jutlp

A SCOPING REVIEW OF THE TOPICS, ISSUES AND NEEDS IN CURRENT ACADEMIC INTEGRITY LITERATURE

Rita Santos[1], Temel Serdar[2], Özgür Çelik[3], Rabia Börekci[4], Meltem Baysal Çalışkan[5], Hatice Sezgin[6], Ece Zehir Topkaya[7] & Salim Razı[7],

[1]European Network for Academic Integrity, Portugal
[2]Yılmaz, Balıkesir University, Türkiye
[3]Balikesir University, Türkiye
[4]Ministry of National Education, Türkiye
[5]Trakya University, Türkiye
[6]Selçuk University, Türkiye
[7]Çanakkale Onsekiz Mart University, Türkiye

Academic integrity is a field of study that has been evolving through the years. Research conducted on academic integrity includes aspects such as academic integrity policies, teaching academic integrity from pre-university to university levels, development of educational materials and publication ethics (Davis, 2022; Fudge et al., 2022; Glendinning, 2013; Johansen et al., 2022; Sefcik et al., 2020). Globally, there have been initiatives to uplift the concept and principles of academic integrity and to collaborate towards fostering a culture of integrity in educational and research settings. Such initiatives are visible through the establishment of international networks such as the European Network for Academic Integrity (ENAI) and the International Center for Academic Integrity (ICAI), and research projects that have promoted discussions among experts, contributing to the development of resources (e.g. policies, educational materials and guidelines) and building an understanding over the main issues within the academic integrity field (Bjelobaba et al., 2022; Davies, 2023; Johansen et al., 2022).

Academic misconduct has been identified as one of the key issues within the academic integrity field (Gallant & Rettinger, 2022; Hughes & Eaton, 2022). Academic misconduct includes actions associated with plagiarism, data manipulation, contract cheating, supervision issues and authorship abuse which may affect people who are seriously disadvantaged by the misconduct of others (Bretag, 2013; Gallant & Rettinger, 2022; Gunsalus, 1998; Hughes & Eaton, 2022). Current literature demonstrates some prevalence and experiences related to academic misconduct among students, researchers, and academics. Fanelli (2009), in his meta-analysis study, reported that nearly 2% of researchers admitted having falsified data, and 34% admitted having engaged in other questionable practices. Similarly, in their Dutch survey study targeting academics and researchers, Gopalakrishna et al. (2022) reported that 4% of participants admitted having engaged in data manipulation and over 50% admitted to at least one questionable practice. Among students, plagiarism seems to be one of the main concerns, with Bretag (2013) reporting plagiarism rates at undergraduate level ranging from 19% to 81%. Similar percentages are also reported at graduate and postgraduate levels (Gilmore et al., 2010).

The prevalence of academic misconduct and the recognition of the impacts such actions have on the quality of school education and the scientific outputs have led to initiatives at the European level and beyond to tackle them. An example of such an initiative is the Erasmus+ project FAITH (Facing Academic Integrity Threats; Project number: 2021-1-TR01-KA220-HED-000027559). The FAITH project recognises the need to support Higher Education Institutions (HEIs) in the establishment of minimum standards for academic integrity policies (Project Result 1) while helping academics and undergraduate students to prevent, deter and detect academic misconduct through evidence-based guidance and training materials (Project Result 2). Additionally, the FAITH project recognises that victims of academic misconduct (e.g. people who have seen their work plagiarised, whistleblowers who have been targeted for reporting misconduct, and people who were denied credit due to unfair practices for research they genuinely contributed to (Sivasubramaniam et al., 2021) may lack support from their institution to report and seek advice on the unethical behaviours of others. Having that in

mind, the project has implemented an online portal to support victims of academic misconduct, the Victim Support Portal (Project Result 3).

Focusing exclusively on Project Result 3 and to better understand the needs of victims of academic misconduct, we first started by mapping recent literature on academic integrity to comprehend the main topics and issues that are reported and identify the gaps. Here we present the findings of a scoping literature review we did to:

a) explore the main topics covered by the literature on academic integrity over the last ten years (2013-2022);
b) identify the type and prevalence of reported academic misconduct;
c) identify studies addressing victims of academic misconduct and supporting mechanisms available at the institutional level to support victims.

Development of our methodological framework started by conducting a literature search in the Scopus database, using our defined keywords (e.g. academic misconduct, questionable practices, whistleblower) and inclusion and exclusion criteria (i.e. type of publication, timeline (2013-2022), scientific field, etc.) to ensure only relevant studies were included in the analysis. Our search retrieved 185 studies that were tagged, based on variables such as publication details, topic, content, and methods.

Our findings suggest that publications on academic integrity issues are rising, despite some fluctuations, with publication numbers showing a general tendency to increase within the last ten years (2013-2022), with a dramatic proliferation from 2018 (n = 8) to 2021 (n = 29). Researchers have mainly utilised article publication (95.6%) as a method of dissemination, followed by book chapters (2.2%) and conference papers (2.2%). Among the most selected journals for article publications are the Journal of Academic Ethics (13%), Accountability in Research (10%), and Science and Engineering Ethics (8%). Regarding methods of inquiry, most studies used quantitative techniques (65.9%) for data collection and analysis over qualitative (21.6%) and mixed methods (12.4%). Finally, the thematic analysis revealed six main themes: **1)** academic integrity, **2)** academic integrity policy, **3)** academic misconduct, **4)** research integrity, **5)** research misconduct, and **6)** whistleblowing. We identified almost no studies on victims of academic misconduct and institutional support mechanisms for victims.

Our findings suggest that current studies focus mainly on academic integrity and perspectives and experiences on academic dishonesty. Literature focusing on victims of academic misconduct, institutional support mechanisms available for victims, and the role of whistleblowers are overlooked topics. Consequently, in this presentation, we will discuss the need for studies addressing victims of academic misconduct and effective support mechanisms for victims, the reasons for the scarcity of studies and how the research we are conducting on the FAITH project will raise awareness for the victims of academic misconduct. Policymakers, academics, researchers, and those interested in academic integrity issues, in general, will benefit from this presentation by engaging in a discussion about how institutions should act in supporting victims of academic misconduct and the role of the FAITH project in addressing this issue.

References

Bjelobaba, S., Foltýnek, T., Glendinning, I., Krásničan, V., & Dlabolová, D. H. (Eds.). (2022). *Academic Integrity: Broadening Practices, Technologies, and the Role of Students: Proceedings from the European Conference on Academic Integrity and Plagiarism 2021*. Springer. https://doi.org/10.1007/978-3-031-16976-2

Bretag, T. (2013). Challenges in addressing plagiarism in education. *PLoS Medicine*, *10*(12), 1-4. https://doi.org/10.1371/journal.pmed.1001574

Davis, M. (2022). Examining and improving inclusive practice in institutional academic

integrity policies, procedures, teaching and support. *International Journal for Educational Integrity*, *18*(14), 1-20.

https://doi.org/10.1007/s40979-022-00108-x

Fanelli, D. (2009). How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. *PLoS ONE*, *4*(5), 1-11.
https://doi.org/10.1371/journal.pone.0005738

Fudge, A., Ulpen, T., Bilic, S., Picard, M., & Carter, C. (2022). Does an educative approach work? A reflective case study of how two Australian higher education enabling programs support students and staff uphold a responsible culture of academic integrity. *International Journal for Educational Integrity*, *18*(5), 1-20.
https://doi.org/10.1007/s40979-021-00099-1

Gallant, T. B., & Rettinger, D. A. (2022). Cheating academic integrity: Lessons from 30 years of research. In D. A. Rettinger & T. B. Gallant (Eds.), *Cheating academic integrity: Lessons from 30 years of research.* (pp. 1-9). Jossey Bass.

Gilmore, J., Strickland, D., Timmerman, B., Maher, M., & Feldon, D. (2010). Weeds in the flower garden: An exploration of plagiarism in graduate students' research proposals and its connection to enculturation, ESL, and contextual factors. *International Journal for Educational Integrity 6*(1), 13-28.

https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=1001&context=biol_facpub

Glendinning, I. (2013*). Comparison of policies for Academic Integrity in Higher Education across the European Union*. IPPHEAE Project Consortium. 00%20EU
http://plagiarism.cz/ippheae/files/D2-3%20IPPHEAE%20CU%20Survey%20EU-wide%20report.pdf

Gopalakrishna, G., Ter Riet, G., Vink, G., Stoop, I., Wicherts, J. M., & Bouter, L. M. (2022). Prevalence of questionable research practices, research misconduct and their potential explanatory factors: A survey among academic researchers in The Netherlands. *PLoS ONE 17*(2), 1-16.
https://doi.org/10.1371/journal.pone.0263023

Gunsalus, C. K. (1998). How to blow the whistle and still have a career afterwards. *Science and Engineering Ethics, 4*(1), 51-64.

https://doi.org/10.1007/s11948-998-0007-0

Hughes, J. C., & Eaton, S. E. (2022). Academic misconduct in Higher Education: Beyond student cheating. In S. E. Eaton & C. J. Hughes (Eds.), *Academic integrity in Canada. Ethics and integrity in educational contexts*. (pp. 81-102). Springer. https://doi.org/10.1007/978-3-030-83255-1_4

Johansen, M. W., Goddiksen, M. P., Centa, M., Clavien, C., Gefenas, E., Globokar, R., Hogan, L., Merit, M. T., Nielsen, S. S., Olsson, I. A. S., Poškutė, M., Quinn, U., Santos, J. B., Santos, R., Schöpfer, C., Strahovnik, V., Wall, P. J., Sandøe, P., & Bøker, T. L. (2022). Lack of ethics or lack of knowledge? European upper secondary students' doubts and misconceptions about integrity issues. *International Journal for Educational Integrity, 18*(20), 1-25.
https://doi.org/10.1007/s40979-022-00113-0

Sefcik, L., Striepe, M., & Yorke, J. (2020). Mapping the landscape of academic integrity education programs: what approaches are effective? *Assessment & Evaluation in Higher Education, 45*(1), 30-43.

https://doi.org/10.1080/02602938.2019.1604942

Sivasubramaniam, S. D., Cosentino, M., Ribeiro, L., & Marino, F. (2021). Unethical practices within medical research and publication – An exploratory study. *International Journal for Educational Integrity, 17*(7), 1-13.

https://doi.org/10.1007/s40979-021-00072-y

The iterative process of academic writing: How undergraduate students review their assignments to prevent plagiarism?

Catherine Deri

Université du Québec en Outaouais, Canada

The expression “university literacy” is defined as a discipline interested in the teaching and learning of university-level discourse genres to understand the identities, practices, and power dynamics of this educative milieu (Crahay, 2012; Guay et al., 2015; Hilsdon et al., 2019). It is gaining popularity with a focus placed on the contextual, social, and cultural dimensions of reading and writing (Delcambre, 2012). When addressing academic writing, Badger and White (2000) consider that it primarily pertains to the act of composing a text adhering to rules of vocabulary usage, syntax, and appropriate discourse markers. However, the production of a university-level text is not linear, it is an iterative process of expression and creation that does not only include the action of adding words on a blank page (Dobiecki, 2006). According to Tremblay-Wragg et al. (2021), academic writing involves back-and-forth movements between the planning of one’s work, their reflexive analysis of information, and the composition of the actual written product. In the digital era, this dynamic process implies the mobilization of digital scrapbooking strategies (DSS), represented by 23 cognitive actions categorized into three competencies: information searching, writing, and referencing (Peters, 2015). Any deficiencies observed, in these three categories of competencies, may result in university students plagiarizing, be it intentionally (Bergadaa, 2015) or unintentionally (Eaton, 2021).

Our study aimed at identifying the use of DSS by undergraduate students, while they produce written assignments, to better understand how to prevent plagiarism. With that objective in mind, we recruited 11 students from five different disciplines and four distinct universities located in the Canadian French-speaking province of Quebec. The students were at different stages of their undergraduate studies (6 in the first half and 5 in the second half of their study program), and 64% of them confirmed never receiving training on how to prevent plagiarism. The participants were tasked with drafting a text of 500 words, on a desktop, during which their cognitive actions were recorded by the Open Broadcaster Software (OBS). The video recordings were then coded in the qualitative analysis software NVivo by accounting for strategies used by students and the time spent on each of those cognitive actions. We also examined the back-and-forth movements between the three types of competencies in a content analysis. Lastly, the final written products were assessed based on evaluation criteria established by the Department of Education, including the text coherence, the usage of appropriate vocabulary, and the adherence to grammatical norms.

During our presentation, we will focus on findings related to writing competencies, particularly those strategies mobilized when students polish draft assignments by reviewing, correcting, rewriting, and formatting written products prior to their submission. The iterative nature of academic writing will be highlighted by depicting two distinct student profiles, namely those who proofread as they progressively developed their assignment and those who saved such strategies for the end of the writing task. Moreover, the results of a comparative analysis will show how strategies used by each student profile influence the evaluation of final written products, from a plagiarism perspective. In closing, we will recommend further avenues of exploration in the

domain of teaching and learning at institutions of higher education, with a view of fostering a culture of academic integrity by using winning strategies for academic writing. We will also share our perspectives on the data collection instrument used in our research, since there is very little coverage in scientific literature on this specific method that presents significant potential for future studies on academic integrity.

References

Badger, R. & White, G. (2000). A process genre approach to teaching writing. *ELT Journal, 54*(2), 153-160. https://doi.org/10.1093/elt/54.2.153

Bergadaa, M. (2015). Une brève histoire de la lutte contre le plagiat dans le monde académique. *Questions de communication, 1*(27), 171-188. https://doi.org/10.4000/questionsdecommunication.9787

Crahay, M. (2012). Les littéracies universitaires peuvent-elles s'enseigner? Quelques questions suscitées par une pratique de formation en première année d'université. In M-C. Pollet (Ed.), *De la maîtrise du français aux littéracies dans l'enseignement supérieur* (pp. 63-78). Presses universitaires de Namur.

Delcambre, I. (2012). De l'utilité de la notion de littéracies pour penser la lecture et l'écriture dans l'enseignement supérieur. *Diptyque*, *24*, 19-35. https://hal.science/hal-01593000v1

Dobiecki, B. (2006). *Rédiger son mémoire en travail social*. *Toutes les clés pour le réussir*. Éditions Sociales Françaises.

Eaton, S. (2021). *Plagiarism in Higher Education: Tackling Tough Topics in Academic Integrity*. Librairies Unlimited.

Guay, A., Émery-Bruneau, J., & Lafontaine, L. (2015). Les pratiques d'écriture déclarées d'étudiants en formation initiale à l'enseignement et le niveau de littératie universitaire. In L. Lafontaine & J. Pharand (Eds.), *Littératie. Vers une maitrise des compétences* (pp. 207–226). Presses de l'Université du Québec.

Hilsdon, J., Malone, C., & Syska, A. (2019) Academic literacies twenty years on: a community-sourced literature review. Journal of Learning Development in Higher Education, 15, pp. 1-47.

Peters, M. (2015). Enseigner les stratégies de créacollage numérique pour éviter le plagiat au secondaire. *Revue canadienne de l'éducation, 38*(3), 1-28. https://journals.sfu.ca/cje/index.php/cje-rce/article/view/1878

Are we preparing pre-service teachers to embed academic integrity in K-12 curriculum? An Australian perspective

Ann Rogerson, Claire Rogerson & Tiffani Apps

University of Wollongong, Australia

This presentation discusses the academic integrity issues that exist through identifying that pre-service (student) teachers in Australia are not taught how to translate their higher education experiences with academic integrity to the school curriculum they teach.

As background, Australian generalist (primary, grade or elementary level – Kinder to Year 6) teachers are required to teach across all Key Learning Areas (disciplines) in addition to Literacy; Numeracy; Personal and Social Capability; Information and Communication Technology; Critical and Creative Thinking; Ethical Understanding; Intercultural Understanding, which are referred to a General Capabilities (AITSL, n.d, ACARA, n.d.a). Australian high school (secondary level – years 7-12) teachers deliver specialised curriculum in a particular area (for example mathematics, science, language, creative arts) while integrating the General Capabilities into what they teach (AITSL, n.d).

To understand the relationship between how pre-service teachers are taught how to teach in Australia, we examined the current national K-12 curriculum set by the Australian Curriculum Assessment Reporting Authority (ACARA) and then compared this with the approved curriculum for Initial Teacher Education (ITE) at our own institution. ACARA is the national organisation that develops all Australian primary and secondary school curriculum. Australian higher education providers are required to have their ITE courses accredited with the Australian Institute of Teaching and School Leadership (AITSL) in order for pre-service teachers to be accredited to teach in Australian schools. This is usually delivered via a four-year full-time degree which includes course content and practicums. Higher Education institutions in Australia gain this accreditation through mapping the Australian National Curriculum and the Australian Professional Teaching Standards to ensure all content has been addressed through subjects, courses, assessment and professional experience supervised within a school.

Our comparative work identified that there are references to some of the principles of academic integrity in the General Capabilities areas of Digital Literacy and Critical and Creative Thinking (ACARA, n.d.b, n.d.c). For example: students are required to "*demonstrate responsibility and respect for others by protecting their own digital creations and crediting others' content when appropriate"* (ACARA, n.d.c). It is unclear how this and other learning outcomes are embedded and applied in various educational contexts appropriate to the age of the student cohort as the ITE teacher curriculum must cover the entire curriculum for their respective setting (either K-6, or 7-12). Consequently, the ITE curriculum appears to rely on some expectations. Firstly, that pre-service teachers will inherently know to translate their exposure to the principles of academic integrity to their area of teaching and their school-based student cohorts, and/or can reasonably expect or assume that it is the responsibility of others such as a teacher/librarian where such positions exist within a school.

Through our investigation it has become clear that any detailed exposure to the principles of academic integrity as part of the ITE curriculum is solely based on a pre-service teachers' own higher education experience, and not on the actual course content. It has been noted in studies by Fontaine et al (2020) and DiPaulo (2022) that pre-service teachers do have propensity to cheat similar to other disciplines. If this is the case then some pre-service teachers are less likely to educate or uphold the principles of academic integrity with their own students which can

generate future problems for other educational institutions (Khan & Mulani, 2020) and workplaces (Guerrero-Dib et al. 2020).

The Australian ITE curriculum is remiss in that it does not equip pre-service teachers with the explicit knowledge of how to embed the principles of academic integrity or measure their achievement by students when they are in training to be a generalist or specialist teacher. This gap has also been noted in areas such general education in ethics (Boon & Maxwell, 2016). It should be noted that the volume of learning required to gain a teacher qualification is large and diverse and finding adequate space in the ITE curriculum to do justice to the issue has and will continue to be difficult to find. Further, any knowledge about academic integrity will also be influenced by when the teacher completed their ITE, and which version of the national curriculum was in place at the time they graduated. This results in a wide range of student experiences in their exposure and understanding of academic integrity and may ultimately leave some students with little practical experience with appropriately acknowledging sources and creating original work.

What has resulted from this work (Rogerson et al., 2023) is a clearer understanding of why some of the academic integrity issues arise with students transitioning from secondary school to higher education in Australia. The first year in higher education is a major change in the focus of pedagogy from the high stakes/high school exams to gain entry into universities (Corrin et al., 2019) to a different style of learning with different expectations (Kift, 2015). The transitional education space where students move from high school experiences to colleges and universities exposes the limitations of how academic integrity is embedded in school related contexts (Hossain, 2022, Wan & Scott, 2016, Waangard, 2016) with some of this related to ITE education.

To address this within our own institution and the ITE curriculum we are now encouraging deeper discussions with pre-service teachers to highlight academic integrity issues related to their own studies while working through how to embed it into what they teach in appropriate way relative to the learning stage of the student cohort. While this approach will assist current pre-service teachers in addressing the ITE gap and better preparing their students for the academic integrity requirements at other levels of education in the future, this has also exposed big gaps in the academic integrity knowledge of existing teachers. Teachers are hard pressed to keep up to date with changes to national curricula on top of their other responsibilities.

Based on the Australian experience, we encourage other researchers to consider the impact of the learning experiences of pre-service teachers and their influence on transition pedagogies. We are now examining additional ways to encourage greater capacity and preparedness in school teachers as well as students to be ready to undertake higher education and upholding academic integrity.

References

ACARA (n.d.a). General capabilities. *Australian Curriculum, Assessment and Reporting Authority (ACARA).* (Retrieved from: https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/). Accessed 20 May 2022.

ACARA (n.d.b). Critical and Creative Thinking. *Australian Curriculum, Assessment and Reporting Authority (ACARA).* (Retrieved from: https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/). Accessed 20 May 2022.

ACARA (n.d.c). Information and Communication Technology (ICT) Capability. *Australian Curriculum, Assessment and Reporting Authority (ACARA).* (Retrieved from : https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/information-and-

communication-technology-ict-capability/).Accessed 20 May, 2022.

AITSL (n.d). Deliver ITE Programs. *Australian Institute for Teaching and School Leadership (AITSL).* (Retrieved from: https://www.aitsl.edu.au/deliver-ite-programs. Accessed 20 May, 2022.

Boon H. J., Maxwell, B. (2016) Ethics education in Australian preservice teacher programs: A hidden imperative? Australian Journal of Teacher Education (Online), 41:5, (pp.1-20). http://ro.ecu.edu.au/ajte/vol41/iss5/1.

Corrin, L., Apps, T., Beckman, K., & Bennett, S. (2019). Myth of the digital native and what it means for higher education. In A. Attrill-Smith, C. Fullwood, M. Keep, & D. Kuss (Eds.), Oxford Handbook of Cyberpsychology. Oxford University Press. (pp.1-19). https://doi.org/10.1093/oxfordhb/9780198812746.001.0001.

DiPaulo, D. (2022). Do preservice teachers cheat in college, too? A quantitative study of academic integrity among preservice teachers. International Journal for Educational Integrity, 18(1), 2, (pp.1-14). https://doi.org/10.1007/s40979-021-00097-3.

Fontaine, S., Frenette, E., & Hébert, M.-H. (2020). Exam cheating among Quebec's preservice teachers: the influencing factors. International Journal for Educational Integrity, 16(1), 14. https://doi.org/10.1007/s40979-020-00062-6.

Hossain, Z. (2022). University freshmen recollect their academic integrity literacy experience during their K-12 years: results of an empirical study. International Journal for Educational Integrity, 18(1), 4, 1-18. https://doi.org/10.1007/s40979-021-00096-4.

Rogerson, A.M., Rogerson, C., Apps, T. (2023). Embedding principles related to academic integrity in teacher education in Australia. In Eaton, S.E., Khan, Z.R. (eds) Ethics and Integrity in Teacher Education (pp.13-23). Springer, Cham. https://doi.org/10.1007/978-3-031-16922-9_2

Wan, G., & Scott, M.R. (2016). Start them early and right: Creating a culture of academic integrity in elementary schools. In: T. Bretag (Ed.), Handbook of academic integrity (pp. 414-427). Springer. https://doi.org/10.1007/978-981-287-098-8.

Wangaard, D.B. (2016). Practices to support developing academic integrity in secondary school students. In: T. Bretag (Ed.), Handbook of academic integrity (pp. 429-448). Springer. https://doi.org/10.1007/978-981-287-098-8.

Panel Discussion 1

GLOBAL VIEWS ON ACADEMIC INTEGRITY FROM UK PERSPECTIVES

Panel members: Robin Crockett, Sandie Dann, Michael Draper, Irene Glendinning, Thomas Lancaster

The five panellists, each with extensive knowledge and experience of different aspects of academic and research integrity, regularly communicate about developments and to share and discuss interesting news. In this panel session, their views on some tricky questions will be shared with the audience.

The discussions will include, but not be confined to: institutional and national approaches to academic integrity; how artificial intelligence advances are changing education, pedagogy and assessment; how has legislation banning the operation and advertising of essay mills affected contract cheating.

If anyone has any questions they would like to put to the panel, or to individual panellists, they are welcome to submit them in advance to ireneg@coventry.ac.uk

Parallel Session 4 | Room 1

On Integrity Plans & Disciplinary Expectations

Anita Chaudhuri

University of British Columbia, Canada

Recently, a top-ranking Canadian university introduced an addition to its academic misconduct regulation. A new 'diversionary process' directs attention to an educative approach and creates option for "integrity plans – a set of agreed upon outcomes and a plan of action between student and Faculty" (academicintegrity.ubc.ca). The policy addition can be read as supportive of equity as it offers an opportunity to 'divert' cases of academic misconduct to active engagement with learning strategies that support academic integrity. The diversionary process asks for actionable steps that involve faculty members and students to immerse in an outcome-based dialogic process. It requires commitment of time, learning space, and supportive learning avenues or structures that do not stall the learning or career progression of a student. On the flip side, the process may increase workload for both instructors and students. Therefore, to ensure successful implementation of this new regulation it is essential to create learning pathways beyond the staple modules that define and exemplify commonplace terminologies. The regulation is an opportune moment to ask questions such as: How do we teach integrity that addresses implicit expectations of a discipline? How do we individualize integrity plans? Should we embed integrity plans within courses as preparation for academic and professional domains?

With this backdrop in mind, this presentation argues that policy change to support educative approaches is important, but it is crucial to develop student-focused material that can be used to improve engagement and understanding of academic integrity. An environmental scan of learning materials for post-secondary students shows self-learning modules and quizzes, syllabus language, slide sets on best practices, and even a classroom board game. However, the general nature of these resources relies heavily on how much time an instructor may choose to spend discussing the material. As a result, students may not feel prepared to meet disciplinary expectations. To address this ethical quandary and promote disciplinary understanding of academic integrity, this presentation discusses an OpenEd resource that acknowledges the importance of teaching discipline-specific expectations on academic integrity. In line with Eaton and Edino's (2018) call for disciplinary understanding of academic integrity and Bens' (2022) framework of 'explain, equip, and enforce', the project demonstrates how teaching practitioners can unravel discipline specific expectations on academic integrity. Contributors for this project have taken up topics such, the importance of ownership and voice in writing, cultural aspect of learning and how that influences second language writers, value of academic integrity in professional preparedness, and impact of artificial intelligence on academic integrity, to name a few. Development of this open access, student-facing, discipline-specific content intends to support classroom discussion and encourage allyship with learners to support an educative approach and an institutional integrity plan.

References

(n.d.) Diversionary process: Helping to resolve misconduct cases. Academic integrity. https://academicintegrity.ubc.ca/diversionary-process/

Bens, S. (2022). Helping students resolve the ambiguous expectations of academic integrity. *Academic integrity in Canada: An enduring and essential challenge.* Springer.

Eaton, S. E., & Edino, R. I. (2018). Strengthening the research agenda of educational integrity in Canada: A review of the research literature and call to action. *International Journal for Educational Integrity*, 14(1), 1-21. https://doi.org/10.1007/s40979-018-0028-7

Practical Responses to Artificial Intelligence–Generated Texts in Academic Integrity Policies

Salim Razi[1], Sarah Elaine Eaton[2], Zeenath Reza Khan[3], Rita Santos[4], Özgür Çelik[5], Teddi Fishman[6] & Shiva Sivasubramaniam[7] Sonja Bjelobaba[8], Gabor Laszlo[9], & Amani Abu-Shaheen[10]

[1]Canakkale Onsekiz Mart University, Türkiye
[2]University of Calgary, Canada
[3]University of Wollongong in Dubai,
[4]European Network for Academic Integrity, Portugal,
[5]Balıkesir University, Türkiye,
[6]ENAI Advisor
[7]University of Derby, UK
[8]Uppsala University, Sweden
[9]University of Public Service, Hungary
[10]King Fahad Medical City, Saudi Arabia

While the technology of artificial intelligence–generated texts dates back to the first digital computers in the 1980s (Roser, 2022), several commercial software products, such as Microsoft (MS) Word and Grammarly, have already been using Artificial Intelligence (AI) natural language processing (NLP) systems to provide automated feedback on mechanical and linguistic features of the text, such as spelling and grammar (Hosseini et al., 2023), many teachers have not yet focused directly on it in their classrooms. The release of tools such as ChatGPT towards the end of 2022 went beyond providing feedback and has confirmed the capability of AI content generators. The human-like responses generated by these tools necessitate further investigation into their potential for aiding learning and maintaining assessment integrity, an increasingly urgent task.

Teachers must address the challenging task of distinguishing texts written by chatbots, the tools using AI to generate text ("Editorial", 2023). The algorithm behind such tools makes informed predictions based on a very large data set, learning patterns and predicting the next ideal word, reminding us of Goodman's (1967) psycholinguistic guessing game model, which prioritises the role of relevant schematic knowledge. AI technology seems to benefit from the genre approach to writing. Genres provide information about the main characteristics of texts, such as the flow of ideas and vocabulary choice (Swales, 1990), and AI tools generate coherent texts by using minimal prompts (Vincent, 2019). Although their products are regarded as promising, they have several current limitations, such as their inability to produce lengthy essays or distinguish truth from falsehoods. Yet, AI technology has enormous potential to change our lives because everyone can easily use these tools regardless of technical knowledge. Considering the recent announcement by Microsoft (2023) confirming a multibillion-dollar investment in AI technology, we can predict that AI will be more visible and effective in the near future.

Although the developments with the AI NLP systems are promising, there are many issues relating to academic integrity. We have recently witnessed various reactions towards the implementation of AI–generated texts. For example, some institutions and/or academics have reacted reflexively, discouraging or even banning their students from submitting AI–generated texts; while others have considered it an opportunity and encouraged their students to experiment with it and blend AI–generated texts into the essays they submit.

News regarding institutions taking a stand against AI–generated tools is also being published. Rahman (n.d.) reported that the state Department of Education in New York City had completely banned ChatGPT usage by students. His report further indicated that there are a growing number of HE institutions banning AI–generated tools. As for the UK, the main Russell group universities, including the University of Manchester, Bristol University, Edinburgh University, Oxford University, and Cambridge University, have already banned using any AI–assisted work by

classifying this as an act of academic misconduct. In Asia, Hong Kong University and RV University (in Bengaluru), India are amongst the first institutions that banned AI–based tools such as ChatGPT, GitHub Co-Pilot and Black Box (Leung & Niazi, 2023). Some text-matching software companies and other programme developers are working on systems to enable the detection of AI–generated texts; however, it is still possible to by-pass AI text detectors. This deficiency makes a stronger argument on behalf of those who support the ban on the use of AI–text generators in academia.

Montclair State University (n.d., New Jersey, USA) and Uppsala University (2023, Sweden) have already published their responses about the NLP systems in which they provide practical tips for the lecturers in addressing the issue. As another example, Coventry University (UK) has been revising its policy to allow the use of AI–generated texts in student assignments (Glendinning et al., 2023), as has the University of Wollongong and its global campus in Dubai (UOW, 2023). In addition, the question of authorship becomes blurred relating to AI–generated texts. ChatGPT was listed as the co-author in an article (see O'Connor & ChatGPT, 2023) and encouraged publishers to develop policies toward publishing AI–generated articles on their platforms. Considering that we have not reached a consensus yet about under which circumstances the usage of NLP systems is acceptable, we aim to provide practical responses to AI–generated texts by considering it from an academic integrity policies perspective.

In general, academic integrity policies call for an overarching commitment to a culture of academic integrity (Bretag et al., 2011). These policies are one of the key elements of creating a culture of integrity simultaneously (Morris, 2016; Scanlan, 2006) and developing multi-pronged policies and effective enactment are crucial components of integrity culture. Almost equally important is revising and updating these policies (Stoesz et al., 2019) because policies are living documents that should be updated in line with the changes and developments in the field.

However, the reflection of changes into the actual policies is usually slow and takes time. As an example, although the phrase was first coined by Clarke and Lancaster (2006), "contract cheating" is still not covered in a vast majority of academic integrity policies even 13 years later (Stoesz et al., 2019). Therefore, it is an essential endeavour to understand the emerging phenomena in the academic integrity field to (1) develop a shared understanding, (2) explore diverging and converging ideas, and (3) facilitate the coverage of such emerging phenomena in academic integrity policies.

Considering the aforementioned issues, we will illustrate several hypothetical scenarios during the presentation. The scenarios will be constructed using a focus group session with the involvement of the paper authors. Expert feedback will be obtained through the Delphi technique to create the final version of the scenarios. These scenarios will come from various disciplines and contexts, such as writing an essay for a foreign language, biomedical report or science class. As most recent academic integrity policies are insufficient in addressing the threats posed by AI-generated texts, the use of a diverse range of scenarios is expected to help examine the appropriate use of NLP systems in accordance with outcome-specific guidelines. Discussing these scenarios will lead to a shared understanding of the conditions under which NLP systems can be used effectively and ethically. We hope that our responses and efforts will help individuals as well as institutions in revising their academic integrity policies and developing guidelines accordingly, which will help them to be comfortable rather than panicked about AI–generated texts.

References

Bretag, T., Mahmud, S., Wallace, M., Walker, R., James, C., Green, M., East, J., McGowan, U., & Patridge, L. (2011). Core elements of exemplary

academic integrity policy in Australian higher education. *International Journal for Educational Integrity*, 7(2), 2. https://doi.org/10.21913/IJEI.v7i2.759

Clarke, R., & Lancaster, T. (2006). Eliminating the successor to plagiarism? Identifying the usage of contract cheating sites. In *Proceedings of the 2nd plagiarism: Prevention, practice & policy conference 2006*, Newcastle UK: JISC Plagiarism Advisory Service.

Editorial. (2023). Tools such as ChatGPT threaten transparent science; here are our ground rules for their use. *Nature, 613,* 612. https://www.nature.com/articles/d41586-023-00191-1

Glendinning, I., Ganobcsik-Williams, L., & McCall, J. (2023). Consultation on use of artificial intelligence tools [Paper presentation]. European Conference on Ethics and Integrity in Education 2023, Derby. https://academicintegrity.eu/conference/

Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*, 6(4), 126–135. https://doi.org/10.1080/19388076709556976

Hosseini, M., Rasmussen, L. M., & Resnik, D. B. (2023). Using AI to write scholarly publications. *Accountability in Research.* https://doi.org/10.1080/08989621.2023.2168535

Leung, M., & Niazi S (2023, February 24) Universities on alert over ChatGPT and other AI-assisted tools. *University World News*. https://www.universityworldnews.com/post.php?story=20230222132357841#:~:text=RV%20University%20in%20Bengaluru%20banned,work%20on%20account%20of%20plagiarism

Microsoft. (2023, January 23). *Official Microsoft blog: Microsoft and OpenAI extend partnership.* https://blogs.microsoft.com/blog/2023/01/23/microsoftandopenaiextendpartnership/

Montclair State University (2023). ChatGPT and artificial intelligence. https://www.montclair.edu/itds/digital-pedagogy/pedagogical-strategies-and-practices/ai/

Morris, E. J. (2016). Academic integrity policy and practice: Introduction. In T. Bretag (Ed.), *Handbook of academic integrity* (pp. 409–411). Springer. https://doi.org/10.1007/978-981-287-098-8_79

O'Connor, S., & ChatGPT. (2023). Open artificial intelligence platforms in nursing education: Tools for academic progress or abuse? *Nurse Education in Practice, 6.* https://doi.org/10.1016/j.nepr.2022.103537

Rahman, B. (2023, January 30). ChatGPT banned by Indian, French and US colleges, schools and universities to keep students from gaining unfair advantage. *MySmartPrice.* https://www.mysmartprice.com/gear/chatgpt-banned-by-indian-french-and-us-colleges-schools-and-universities/#What_Measures_Did_the_US_Department_of_Education_Take_to_Curb_the_Usage_of_ChatGPT

Roser, M. (2022, December 6). The brief history of artificial intelligence: The world has changed fast – what might be next? *Our World in Data.* https://ourworldindata.org/brief-history-of-ai

Scanlan, C. L. (2006). Strategies to promote a climate of academic integrity and minimize student cheating and plagiarism. *Journal of Allied Health, 35*(3), 179–185.

Stoesz, B. M., Eaton, S. E., Miron, J. B., & Thacker, E. (2019). Academic integrity and contract cheating policy analysis of colleges in Ontario, Canada. *International Journal for Educational Integrity*, *15*(4), 1-18. https://doi.org/https://doi.org/10.1007/s40979-019-0042-4

Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge University Press.

University of Wollongong Australia (UOW). (2023, January 25). *Academic integrity policy.* https://documents.uow.edu.au/content/groups/public/@web/@gov/documents/doc/uow058648.pdf

Uppsala University. (2023, March 1). *Reducing the risk of students using AI to cheat.* https://www.uu.se/en/news/article/?id=20386&typ=artikel&lang=en

Vincent, J. (2019, November 7). OpenAI has published the text-generating AI it said was too dangerous to share. *The Verge*. https://www.theverge.com/2019/11/7/20953040/openai-text-generation-ai-gpt-2-full-model-release-1-5b-parameters

Building a higher education academic integrity policy corpus

Salim Razi[1], Ece Zehir[1], Özgür Çelik[2], Rita Santos[3] & Shiva Sivasubramaniam[4]

[1]Canakkale Onsekiz Mart University, Türkiye
[2]Balıkesir University, Türkiye,
[3]ENAI Portugal
[4]University of Derby, UK

In all educational levels including higher education (HE) academic integrity policies promote responsible conduct of teaching, learning, and assessment, align the practices with community standards, foster the development of ethical standards, and educate staff and students to uphold academic integrity (Bretag & Mahmud, 2015). From this standpoint, it can be argued that developing and implementing academic integrity policies are among the essential requirements of institutional academic integrity culture (Scanlan, 2006). However, such policies are not "one size fits all" blueprints (East, 2015, p. 489). They reflect contextual and cultural factors involved in the understanding and approaches of institutions toward academic integrity and therefore they might be slightly different from institution to institution, depending on the core values. Although a shared understanding of academic integrity is essential in establishing a culture of academic integrity (Eaton et al., 2020), exploring different approaches and institution-specific best practices contributes to developing multi-pronged policies. Policy analysis studies are essential in that they research informed approaches and best practices in different contexts. However, in such studies, policy collection is time- and labour-intensive. Researchers might need a database to draw a policy sample based on certain criteria and perform plain analyses. Within this scope, this study set out to create a HE academic integrity policy corpus for scholars along with a web interface where users can download policies based on certain criteria.

The corpus-building process was carried out in five phases with the aim of creating a comprehensive and representative HE academic integrity policy corpus, namely planning, collecting, formatting, building, and disseminating (see Figure 1).

In the Planning phase, we had several meetings to formulate the research questions that would guide the corpus-building process. We then determined the target materials (i.e., policy, guideline, directive, regulation) to be collected and sources (i.e., quality assurance bodies, university websites, individuals) to be included. We created an online form (Policy Input Form) to collect the tentative policies in a temporary repository. The form included metadata such as the name of the policy, institution, country, language, and file type, which helped us sort out the policies collected. We conducted the Planning phase delicately, as it provided a clear direction for the rest of the process and ensured that the corpus would be useful for the intended purpose.

The Collecting phase was carried out in three waves. In the first wave, we targeted collecting policies from the project partners' countries (Czechia, Germany, Portugal, Slovenia, Türkiye). In the second wave, we expanded the scope of the search by including ENAI partner countries by reaching the researchers from our close circle. In the third wave, we aimed to collect policies from overseas countries such as the USA, Canada, Australia, and New Zealand. In this step, we contacted researchers in these countries who study academic integrity and policy development. After several months of the policy collection process, we collected 344 policies from 27 different countries in 15 languages. We then classified them according to the target groups, namely students (30.1%), faculty members (20.7%), teachers (7.4), administrators (3.5%), and to all school community (54.3%). The majority of the policies collected are in the PDF format (82.2%), while the collection also includes policies in the HTML (16.7%) and DOC (0.9%) formats.

The third phase, Formatting, involved formatting the policy documents for the permanent storage and web interface. First, we determined inclusion/exclusion criteria and refined the data based on these criteria. Then, we decided on a document naming convention so that each policy

could have a unique ID and renamed the documents accordingly. Finally, we created PDF and TXT versions of the policies in the repository. We used a browser add-on to create reader-friendly PDF versions of the policies to increase their readability.

After refining, renaming, and formatting the policies, we moved the policies into the permanent secure repository in one of the partners' institutional server in the fourth phase (Building). Then, we developed a web interface for the corpus where users can search for HE academic integrity policies by refining their search based on country, language, institution, document type, target group, and textual queries. The web interface allows users to read the PDF versions of selected policies or bulk download a policy sample based on certain criteria.

In the final phase, Dissemination, we aimed to increase the visibility of the HE Academic Integrity Policy Corpus and make it accessible to a wider audience to increase its impact. During the dissemination of the corpus, we utilized the project partners' institutional web pages, social media accounts, and personal communications.

As outlined above, policy collection is a time and labour-intensive endeavour in policy analysis studies. Within this scope, we foresee that the HE Academic Integrity Policy Corpus can facilitate academic integrity policy analysis studies and allow policymakers to inspect and evaluate the policies across the world via the web interface. Also, it might be a valuable source for educational institutions and individuals to see the current landscape of HE academic integrity policies. In this presentation, we will elaborate on the corpus building process and introduce the beta version of the Academic Integrity Policy Corpus to get feedback for improvement from the participants.

References

Bretag, T., & Mahmud, S. (2015). A conceptual framework for implementing exemplary academic integrity policy in Australian higher education. In T. Bretag (Ed.), *Handbook of academic integrity* (pp. 1–14). Springer. https://doi.org/10.1007/978-981-287-079-7_24-1

Eaton, S. E., Stoesz, B. M., Thacker, E. J., & Miron, J. B. (2020). Methodological decisions in undertaking academic integrity policy analysis: Considerations for future research. *Canadian Perspectives on Academic Integrity*, *3*(1), 83-91.

Scanlan, C. L. (2006). Strategies to promote a climate of academic integrity and minimize student cheating and plagiarism. *Journal of Allied Health*, *35*(3), 179–185.

Modelling student trust profiles in a mathematical course - a South African perspective

Annette van der Merwe

North-West University, Republic of South Africa

Worldwide, Covid-19 necessitated a swift move from contact to emergency online teaching and learning. This differs from distance learning in which an implied assumption exists that students have unlimited access to online platforms, infrastructure, and learning material (Landa, Zhou, & Marongwe, 2021). Although lecturers were expected to deliver the same quality of teaching as before, conversion to online assessment practices provided its own set of troubles (Czerniewicz, 2020; Soudien, Reddy, & Harvey, 2021). An increase in student enrolment numbers were recorded but the completion rates have not necessarily improved (Swani, Wamwara, Goodrich, Schiller, & Dinsmore, 2022; UNICEF, 2021; Ye, et al., 2022). The resulting loss in discipline and time management implicitly enforced in face-to-face teaching, caused learners to realise their lagging when it genuinely was too late (Schreurs & Oberoi, 2021). The resulting behaviour modification ranged from contacting the lecturer and arranging facilitation to finding novel, yet fraudulent methods to complete assessments (McKenna, 2022; Paudel, 2021).

Electronic invigilation approaches like the use of proctoring software can assist in mitigating devious practices (Singh, Aggarwal, Tiwari, & Joshi, 2022) but the technology required must be reliable and steadfast. Systemic challenges in South Africa related to power outages, bandwidth limitations, and poor service delivery teamed with reports of privacy, racism, and ableism in proctoring software (McKenna, 2022) caused significant disparities in academic achievement among students of varying socio-economic backgrounds (Landa, Zhou, & Marongwe, 2021). Studies, focusing mainly on text-based assessments, are widely conducted to determine the feasibility of using artificial intelligence (AI) in establishing the level of academic integrity in tertiary education institutions (Cotton, Cotton, & Shipway, 2023; Moya, et al., 2023).

Courses that are mathematical in nature may require additional reviewing practices to determine what can be referred to as a trust probability score. Questions generated dynamically according to a mathematical equation with different variables for each student can be used for individualised online assessments (Gamage, Ayres, Behrend, & Smith, 2019). Often, students tend to write tests in groups but submit the same responses for questions that have different input values. Although typing errors may occur, and peer facilitation is encouraged, dishonesty in the form of copying answers should be opposed.

A study is being conducted in an online learning environment in South Africa to categorise students according to the response patterns that are identified when completing online assessments. The methodology includes latent class analysis (Hagenaars & McCutcheon, 2002) to identify students who exhibit similar behaviour patterns on test items and response time analysis (Lu, Wang, Zhang, & Tao, 2020) to determine collaboration patterns. This will be combined with item response theory (Pliakos, et al., 2019) to model a trust score that will indicate the relationship between student participation, ability, performance, and integrity. The expected contribution is to enable lecturers to determine the level of content mastery of a class by categorising it into levels of cognition or understanding. At-risk students can be identified and provided with additional instruction and study material that they are struggling with, be highlighted. Students, on the other hand, will gain insight into the link between academic effort and performance without having to worry about the infrastructural- and societal challenges experienced in the South African context.

References

Cotton, D., Cotton, P., & Shipway, J. (2023, January 10). *Chatting and cheating. Ensuring academic integrity in the era of ChatGPT.* Retrieved from EdArXiv: https://edarxiv.org/mrz8h?trk=public_post_main-feed-card_reshare-text

Czerniewicz, L. (2020, March 15). *What we learnt from "going online" during university shutdowns in South Africa*. Retrieved February 20, 2023, from Philonedtech: https://philonedtech.com/what-we-learnt-from-going-online-during-university-shutdowns-in-south-africa/

Gamage, S. H., Ayres, J. R., Behrend, M. B., & Smith, E. J. (2019). Optimising Moodle quizzes for online assessments. *International Journal of STEM Education, 6*(27), 1-14.

Hagenaars, J. A., & McCutcheon, A. L. (2002). *Applied latent class analysis.* Cambridge: Cambridge University Press.

Landa, N., Zhou, S., & Marongwe, N. (2021). Education in emergencies: lessons from COVID-19 in South Africa. *International Review of Education, 67*, 167-183.

Lu, J., Wang, C., Zhang, J., & Tao, J. (2020). A mixture model for responses and response times with a higher-order ability structure to detect rapid guessing behaviour. *British Journal of Mathematical and Statistical Psychology, 73*(2), 261-288.

McKenna, S. (2022, August 12). *Universities shouldn't use software to monitor online exams: here's why.* Retrieved from The Conversation: https://theconversation.com/universities-shouldnt-use-software-to-monitor-online-exams-heres-why-188327

Moya, B. A., Eaton, S. E., Pethrick, H., Hayden, K. A., Brennan, R., Wiens, J., . . . Lesage, J. (2023). Academic integrity and artificial intelligence in higher education contexts: a rapid scoping review protocol. *Canadian Perspectives on Academic Integrity, 5*(2), 59-75.

NWU. (2020, March 24). 24 March 2020: NWU arrangements – nationwide lockdown. Potchefstroom, North-West, South Africa. Retrieved February 20, 2023, from https://www.nwu.ac.za/coronavirus-nwu-communiques

Paudel, P. (2021). Online education: Benefits, challenges and strategies during and after. *International Journal on Studies in Education (IJonSE), 3*(2), 70-85.

Pliakos, K., Joo, S. H., Park, J. Y., Cornville, F., Vens, C., & Van den Noortgate, W. (2019). Pliakos, Konstantinos, et al. "Integrating machine learning into item response theory for addressing the cold start problem in adaptive learning systems. *Computers & Education, 137*, 91-103.

Schreurs, B., & Oberoi, S. (2021). The impact of the COVID-19 pandemic on student progression in higher education: a review. *Journal of Education for Teaching, 47*(4), 555-567.

Singh, J., Aggarwal, R., Tiwari, S., & Joshi, V. (2022). Exam proctoring classification using eye gaze detection. *3rd International Conference on Smart Electronics and Communication (ICOSEC)* (pp. 371-376). Trichy: IEEE Xplore.

Soudien, C., Reddy, V., & Harvey, J. (2021). The impact of Covid-19 on a fragile education system: the case of South Africa. In F. Reimers (Ed.), *Primary and secondary education during Covid-19: disruptions to educational opportunity during a pandemic* (pp. 303-325). Cham, Switzerland: Springer Nature.

Swani, K., Wamwara, W., Goodrich, K., Schiller, S., & Dinsmore, J. (2022). Understanding business student retention during Covid-19: roles of service quality, college brand, and academic satisfaction, and stress. *Services Marketing Quarterly, 43*(3), 329-352.

UNICEF. (2021, July 22). Learners in South Africa up to one school year behind where they should be. Pretoria, Gauteng, South Africa. Retrieved February 20, 2023, from https://www.unicef.org/press-releases/learners-south-africa-one-school-year-behind-where-they-should-be

Ye, X., Zhai, M., Feng, L., Xie, A., Wang, W., & Wu, H. (2022). Still want to be a doctor? Medical student dropout in the era of COVID-19. *Journal of Economic Behavior & Organization, 195*, 122-139.

Exploring Perceptions and Perspectives on Quality Assurance and Plagiarism in EFL Classes

Ajrina Hysaj[1] & Mark Freeman[2]

[1]University of Wollongong in Dubai, UAE

[2]University of Wollongong in Australia

Introduction

Quality assurance serves as a framework for the accreditation process of universities by providing mechanisms that aim to ensure quality in all aspects of teaching and learning in higher education (Ryan, 2015). Majority of students enrolled in English medium universities worldwide do not speak English as their first language, hence they are commonly enrolled in EFL (English as foreign language classes) (Thompson & Williams,1995). Furthermore, plagiarism is known to be on the rise in EFL classes of all levels, therefore to ensure quality assurance throughout the range of curriculum design of EFL teaching, it is worthwhile to start looking into the notions of plagiarism from teachers and students' perspectives from the lower levels, ensuring adherence to academic honesty at all levels. This paper aimed at opening the path for discussion between EFL teachers about plagiarism in EFL classes of all levels as part of the quality assurance process. It is worth mentioning that, although accreditation bodies like NEAS National ELT Accreditation Scheme Limited) (Australia) put emphasis on plagiarism on the project and group work, they are yet to include plagiarism in the lower levels of EFL teaching in their quality assurance process (NEAS, 2023). The wider emphasis could support to shape the study habits of EFL learners and encourage teachers to incorporate academic integrity in their curriculum design which could translate to improved efficacy for the quality assurance bodies.

Writing skills of EFL students are known to be weaker than of English as L1, hence they involve more in plagiarism instances (Phakiti & Li, 2011; Bretag, 2005; Bretag, 2007; Pecorari & Petrić, 2014). Therefore, it is crucial that quality assurance process in ESL classes includes aspects of plagiarism and academic integrity at all levels, starting from the lower levels when study habits are shaped. This literature review is the starting point of a working paper that aims to explore the perceptions of teachers on academic integrity at lower levels as part of quality assurance process. Plagiarism continues to be a very concerning issue in EFL classes, institutional policies related to quality assurance, are required to take it into consideration when creating institutional policies or when amending preexisting ones (Glendinning, 2014; Tomáš et al., 2020). These policies need to take into consideration application of educative reforms to tackle academic misconduct, while aiming creation of a bonding bridge between shared and received knowledge (Wager & Kleinert, 2012). Supportive qualitive assurance policies need to consider the need to empower students and teachers with the understanding of what constitutes plagiarism, ways of avoiding it and most importantly approaches towards supporting students understanding of the matter being taught in classes through inclusive institutional teaching policies (Wager & Kleinert, 2012; Jenkins, 2013). Although at a glance, plagiarism and its inappropriate justification by individuals involved in academic misconduct instances, seem to require individual attention, its spread and its repercussions have created the necessity of addressing it through a variety of perspectives (Glendinning, 2014; Razı, 2015). These perspectives need to include all the parties involved in teaching and learning as well as approaches used in the process of knowledge sharing, knowledge acquisition and very importantly knowledge assessment (Heap, Martin & Williams, 2006; Glendinning, 2014).

According to Sutherland-Smith (2018), one way of addressing the issue of plagiarism in ESL classes is through the consideration of "3Ds" of plagiarism which are deterrence, detection and dealing-with-it. Although the author agrees that plagiarism is viewed as inappropriate by many societies worldwide, it yet has not reached to a standstill point but instead it is wide spreading despite the continuous efforts put in place by institutions to eradicate it (Brown, 2004; Dill, 2007; Freeman, & Khan, 2022; Khan et al.,2023). One way of succeeding to decrease instances of plagiarism is through continuous collaboration between all the parties involved in the process of teaching and learning (Westerheijden, Stensaker & Rosa, 2007; Ewell, 2010; Nicholson, 2011; Eaton & Turner, 2020; Khan et al., 2021; Khan et al.,2023). In this way, the overreaching goal of eradicating plagiarism may have higher chances of succeeding (Eaton et al., 2020). One of the factors that stands out for the value that it carries in the process of decreasing the occurrence of plagiarism is technology mostly because of the spread and the extensive use in many aspects of personal and academic nature. Therefore, it is important to consider the need to explore the technology and consider it as a progressive factor in the process of ensuring higher standards of academic integrity and improved quality assurance (Jenkins, 2013; Leisyte & Westerheijden, 2014; Glendinning, 2014; Brown, 2018). Although the body of research at a large agrees that notions of academic integrity and quality assurance are highly jeopardized by notions of plagiarism and cheating, and in many instances, technology is used to breach the law rather to adhere it, yet the fair and justifiable use of technology in the process of teaching and learning can create an environment of inclusiveness, where the needs of students are met and where the lessons are comprehended, internally conceptualize, existing knowledge is transferred and new constructed knowledge is produced (Tsoni & Lionarakis, 2014; Sutherland-Smith, 2018; Hysaj & Elkhouly, 2020; Khan et al., 2021; Hysaj, Freeman, & Khan, 2022).

According to the studies by Tsoni and Lionarakis (2014) and McGhee, (2021) many academics do not dedicate an appropriate amount of time in their classrooms informing students about plagiarism and academic misconduct and in many cases, they do not consider the plagiarism prevention software like Turnitin important despite the continuous occurrence of plagiarism instances.

This paper aimed at exploring the literature review on perceptions and perspectives on quality assurance and plagiarism in EFL classrooms. At a later stage, the authors aim to conduct interviews with EFL teachers and students about the perceptions and perspectives they have about the inclusion of anti-plagiarism concepts in the lower levels of EFL teaching, aiming to develop a framework that increases the efficacy of tackling plagiarism in all levels of EFL teaching and learning. The target audience of this paper are EFL teachers, curriculum designers and policy makers.

References

Bretag, T. (2005). *Implementing plagiarism policy in the internationalised university* (Doctoral dissertation, University of Newcastle).

Bretag, T. (2007). The emperor's new clothes: Yes, there is a link between English language competence and academic standards. *People and Place*, *15*(1), 13-21.

Brown, R. (2018). Higher education and inequality. *Perspectives: Policy and Practice in Higher Education*, *22*(2), 37-43.

Dill, D. (2007). Quality assurance in higher education: Practices and issues. *in-Chief Barry McGaw, Eva Baker and Penelope P. Peterson, Elsevier Publications*.

Eaton, S.E. and Turner, K.L. (2020). Exploring academic integrity and mental health during

COVID-19: Rapid review. *Journal of Contemporary Education Theory & Research (JCETR)*, *4*(2), pp.35-41.

Eaton, S.E., Conde, C.F., Rothschuh, S., Guglielmin, M. and Otoo, B.K.(2020). Plagiarism: A Canadian higher education case study of policy and practice gaps. *Alberta Journal of Educational Research*, *66*(4), pp.471-488.

Ewell, P., 2010. Twenty years of quality assurance in higher education: What's happened and what's different? *Quality in higher education*, *16*(2), pp.173-175.

Glendinning, I. (2014). Responses to student plagiarism in higher education across Europe. *International Journal for Educational Integrity*, *10*(1).

Heap, N., Martin, I. and Williams, J. (2006). Issues of quality assurance in the management of plagiarism in blended learning environments.

Hysaj, A. and Elkhouly, A. (2020). Why do students plagiarize? The case of multicultural students in an Australian university in the United Arab Emirates, Integrity in Education for Future Happiness, 64-77.

Hysaj, A. Freeman, M. and Khan, Z. R. (2022) Teaching Academic Writing Skills: A Narrative Literature Review of Unifying Academic Values through Academic Integrity. *Concurrent Sessions 12*, 157.

Jenkins, J, (2013). *English as a lingua franca in the international university: The politics of academic English language policy*. Routledge.

Khan, Z. R. Hysaj, A. John, S. R. and Khan, S. (2021). Gateway to preparing K-12 students for higher education–reflections on organizing an academic integrity camp. In European Conference on Academic Integrity and Plagiarism (p. 66).

Khan, Z. R. Hysaj, A. John, S. R. and Khan, S. A. (2023, January). Transitional Module on Academic Integrity to Help K-12 Students in the UAE Prepare for Next Stage of Education. In Academic Integrity: Broadening Practices, Technologies, and the Role of Students: Proceedings from the European Conference on Academic Integrity and Plagiarism 2021 (pp. 263-287). Cham: Springer International Publishing.

Leisyte, L. and Westerheijden, D.F. (2014). Stakeholders and quality assurance in higher education. In *Drivers and barriers to achieving quality in higher education*, pp. 83-97, Brill.

McGhee, P. (2021). *The academic quality handbook: Enhancing higher education in universities and further education colleges*. Routledge.

NEAS National ELT Accreditation Scheme Limited) (Australia), 2023, NEAS Quality Framework[Online} Available at : https://neas.org.au/resources/neas-quality-framework/#area-i [Accessed at 26 03 2023]

Nicholson, K. (2011). Quality assurance in higher education: A review of the literature.

Pecorari, D., & Petrić, B. (2014). Plagiarism in second-language writing. *Language Teaching*, *47*(3), 269-302.

Phakiti, A., & Li, L. (2011). General academic difficulties and reading and writing difficulties among Asian ESL postgraduate students in TESOL at an Australian university. *RELC Journal*, *42*(3), 227-264.

Razı, S. (2015). Development of a rubric to assess academic writing incorporating plagiarism detectors. *Sage Open*, *5*(2), p.2158244015590162.

Ryan, T. (2015). Quality assurance in higher education: A review of literature. *Higher learning research communications*, *5*(4), n4.

Sutherland-Smith, W. (2018). Is student plagiarism still a serious problem in universities

today?. In *Student plagiarism in higher education* (pp. 47-61). Routledge.

Tomáš, F., Dita, D., Alla, A.N., Salim, R., Július, K., Laima, K., Guerrero-Dib, J., Özgür, Ç. and Weber-Wulff, D. (2020). Testing of support tools for plagiarism detection. *International Journal of Educational Technology in Higher Education*, *17*(1)

Tsoni, R. and Lionarakis, A. (2014). November. Plagiarism in higher education: The academics' perceptions. In *2014 International Conference on Interactive Mobile Communication Technologies and Learning (IMCL2014)* (pp. 296-300). IEEE.

Wager, E. and Kleinert, S. (2012). Cooperation between research institutions and journals on research integrity cases: guidance from the Committee on Publication Ethics (COPE). *Maturitas*, *72*(2), pp.165-169.

Westerheijden, D.F., Stensaker, B. and Rosa, M.J. eds. (2007). *Quality assurance in higher education: Trends in regulation, translation and transformation* (Vol. 20). Springer Science & Business Media.

The Ecosystem of Commercial Academic Fraud: The Academic Underworld of Contract Cheating, Admissions Fraud, and Paper Mills

Sarah E Eaton[1] & Jamie Carmichael[2], [1]University of Calgary, Canada

[2]Carleton University, Canada

In this presentation we present historical and contemporary perspectives on an inquiry that began as an investigation into the global fake degree and fraudulent credential industry (Eaton et al., 2023). The question that originally guided this qualitative inquiry was: What is currently known about the global fake degree industry? This inquiry led to the following, which will be discussed during the presentation: i) definition of the key terms used; ii) linkages between the various forms of commercial academic fraud; iii) the scope and magnitude of the fake degree industry. This work has significance to research ethics as post-secondary institutions are the governing bodies or gatekeepers to academia. If the foundation is based on lies, and deceit, this has consequences for the entire community. Students may be admitted on false pretenses. Also, academics hired without the proper training and expertise, or may claim credentials they have not earned. Fraudulent services also include papers written by services for a fee, including an assignment to satisfy a course requirement, dissertations, or a scientific article. This "underworld" damages the reputation of higher education, decreases its value, and takes away from the important research that is being done.

Method

In this qualitative exploratory study, we employed methods used in historical and documentary research as outlined by Martin (2018). We conducted a knowledge synthesis, which differs from a literature review, insofar as our sources included both scholarly and non-scholarly sources, including news articles. The scholarly research on this topic has been limited and sporadic, when compared to contract cheating, for example. Likewise, the evidence found was often dated. Nonetheless, the approach was to gather as much knowledge as possible, from all sources (Google, Google Scholar to searches in library databases), to form a historical snapshot that contributes to a greater understanding of the problem.

Results and Discussion

The work of FBI Special Agent (retired), Allen Ezell (2019a, 2019b, 2019c, 2022) was immensely helpful in our investigation. Ezell is not a scholar, but a retired member of the FBI who has spent more than 40 years working to combat the global fake degree industry, including legal cases in which he was instrumental in successful prosecution of fake degree operators in the United States (Ezell, 2022). His work is published mainly in professional journals, rather than scholarly journals.

Ezell (2019a, 2019b, 2019c, 2022) describes companies that engage in academic fraud as criminal enterprises and a form of organized crime. Ezell describes the work of fake degree companies as encompassing fake and fraudulent academic documents (e.g., diplomas and transcripts), admissions fraud services (including having student proxies sit entrance exams on behalf of students), the provision of so-called research services and assignment completion services, student proxy services to complete entire courses on behalf of a customer, and scientific writing services (i.e., paper mills).

Contract cheating companies will regularly set up website storefronts and take them down just as quickly. Similarly, there is evidence dating back to the 1950s that degree mills and fake diploma companies have engaged in similar practices of changing PO boxes and telephone numbers to evade detection (Reid, 1963; Ezell, 2019a, 2019b, 2019c).

In his 2019 article on academic fraud and diploma mills, Ezell provided details about how companies that sell bogus academic documents "use extortion and blackmail to extract more money from previous diploma buyers" (Ezell, 2019a, p. 40). Unbeknownst to Ezell, half a world away, Jon

Yorke and colleagues were in the midst of writing an article on how contract cheating companies blackmail students (Yorke et al., 2020).

Through our inquiry we have been able to "connect the dots" in ways not previously done. Not only are the business practices similar, but in fact, we have every indication that there are "full service companies" that offer multiple types of services and products including contract cheating, admissions fraud, fraudulent documents and scientific research fabrications. Some companies have boutique offerings of only student assignment products or only fake parchments, but to date, academic integrity researchers have not considered the connections between these companies. There is strong evidence to show that there is a connection between companies that peddle fake and fraudulent academic and professional documents, contract cheating companies (including those that supply student proxy and impersonation services), admissions fraud services, and the scholarly and scientific paper mill industry. We refer to these interconnected industries as the ecosystem of commercial academic fraud.

Our synthesis sheds new light on the global "academic underworld" (Reid, 1963) that has existed for decades. We hope that our work will bring valuable new perspectives to academic integrity researchers who specialize in contract cheating, fraud, and global corruption of higher education.

References

Eaton, S. E., Carmichael, J., & Pethrick, H. (Eds.). (2023). *Fake degrees and credential fraud in higher education*. Springer. https://doi.org/10.1007/978-3-031-21796-8.

Ezell, A. (2019). Academic fraud and the world's largest diploma mill. *College and University*, *94*(4), 39-46.

Ezell, A. (2019). Diploma mills and counterfeit operations. *College and University*, *94*(3), 39-46.

Ezell, A. (2019). How to identify diploma mills and Axact web sites, and tools for your protection. *College and University*, *95*(1), 47-56.

Ezell, A. (2022, February 3). *The four original fraudbusters: Know your enemy [online]* AACRAO Webcast, https://www.aacrao.org/docs/default-source/webinar-documents/aacrao-2-3-2022-webinar-2-2-2022-1-05-pm-last-master.pdf?sfvrsn=6319d7d6_2

Martin, J. (2018). Historical and documentary research. In L. Cohen, L. Manion, & K. Morrison (Eds.), *Research Methods in Education* (pp. 323-333). Taylor & Francis.

Reid, R. H. (1963). *Degree Mills in the United States.* Columbia University.

Yorke, J., Sefcik, L., & Veeran-Colton, T. (2020). Contract cheating and blackmail: a risky business? *Studies in higher education*, 1-14. https://doi.org/10.1080/03075079.2020.1730313

INVESTIGATING INDICATORS OF PLAGIARISM AND CONTRACT CHEATING THROUGH FORENSIC ANALYSIS

Clare Johnson & Mike Reddy

University of South Wales, UK

Text-matching software has been around for over 20 years and is still the primary technology used for detecting plagiarism. Text-matching takes the text content from a document and checks it against existing repositories and databases to search for matches. This results in a similarity score which tells the assessor how similar the submission is to other sources. More recent developments include authorship tools, which take an intrinsic approach to analysing the text within a document, looking for stylistic anomalies within a single document or extrinsically by comparing it with other work by the same student, across the same assignment within a cohort, or across past academic years. These additional tools go some way to helping detect contract cheating.

What these methods have in common is a focus on the textual content of the document. In fact, of almost 40 plagiarism and text-matching software tools used in academia as compiled by Chowdhury and Bhattacharyya (2018) and Foltýnek et al. (2020), not one of them explores the hidden internal metadata for indicators of academic misconduct. Many document formats, including Microsoft Word, use Extensible Markup Language (XML) to build the document, and this results in a final single .docx file that contains all the information required to display the document correctly, as well as information about the document's construction, underlying structure and references. When unpacked, the .docx file comprises a series of XML files containing this information. Within these files, Microsoft includes tags known as Revision Save Identifiers or RSIDs, and these values mark-up the document every time it is edited. The purpose of this is to facilitate document collaboration and revision tracking, but when interrogated, these tags can also provide more detail about how the document was constructed (Johnson & Davies, 2020a; Johnson & Davies, 2020b, Johnson, Davies & Reddy, 2022b). If this is combined with an understanding of a 'normal' essay writing process, we can begin to build a picture of whether the document appears to be genuine, or whether it is more likely to be copy-and-paste plagiarism, contract cheating, or potentially even artificially generated text using an AI bot such as ChatGPT.

This presentation will demonstrate the manual unpacking of a Word document, explaining what sort of information can be extracted from the unpacked files, followed by the demonstration of a prototype web-based tool which automates this process, extracting and analysing the metadata from the document and summarising the findings back to the browser for an assessor to review. Several documents will be assessed to demonstrate how the tool can detect indicators of plagiarism and contract cheating, as well as presenting what a genuine document should look like. There will also be some discussion around repurposing cyber security techniques in this way to help assist with prevention and detection of academic misconduct.

The session will be useful for anyone with a particular interest in plagiarism and contract cheating detection methods, including those who are unfamiliar with the OOXML and metadata extraction. It follows on from the session delivered by the researchers at ECAIP 2022 (Johnson et al., 2022a), where the prototype tool was discussed and some of the outputs presented. In this session, the tool will be demonstrated in full, with samples of fabricated and actual student work being reviewed within the tool itself to show its potential. Suggestions for improvements to the tool, both in terms of its efficacy and reliability as well as in other areas of interest will be welcomed. Whilst all academic misconduct detection is likely to require human review for some time yet, the methods used in this prototype tool could provide a quick way for academics to review large numbers of documents and provide evidence for academic misconduct panels, thus reducing the time and effort required to take a suspected case to panel. Given the recent advances in AI, where

essay answers can be generated in seconds with reasonably good results, using new methods of detection such as metadata analysis could greatly assist assessors in maintaining academic integrity.

References

Chowdhury, H. A., & Bhattacharyya, D. K. (2018). Plagiarism: Taxonomy, tools and detection techniques. *arXiv preprint arXiv:1801.06323*.

Foltýnek, T., et al. (2020). Testing of support tools for plagiarism detection. *International Journal of Educational Technology in Higher Education,* 17 (46). https://doi.org/10.1186/s41239-020-00192-4

Johnson, C., Davies, R., & Reddy, M., (2022a). *Prototype tool for misconduct detection: A digital forensics approach* [paper presentation]. Ethics and integrity in the changing world, 8th International Conference: European Conference on Academic Integrity and Plagiarism 2022, delivered online.

Johnson, C., & Davies, R. (2020a). Using digital forensics techniques to identify contract cheating: A case study, *Journal of Academic Ethics*, Vol 18 (pp 105-113), Available at: https://doi.org/10.1007/s10805-019-09358-w

Johnson, C., & Davies, R. (2020b). Plagiarism from a digital forensics perspective, In *Integrity in Education for Future Happiness* (pp. 78-89), Brno: Mendel University in Brno

Johnson, C. & Reddy, M. The Student Voice (2018), What We Know About the Students' Perspective of Academic Integrity, in *Towards consistency and transparency in academic integrity*. Razı, S., Glendinnig, I. & Foltýnek, T. (eds.). Berlin: Peter Lang, p. 17-31(book chapter)

Johnson, C., Davies, R. & Reddy, M. (2022). Using digital forensics in higher education to detect academic misconduct, *International Journal for Educational Integrity*, Vol.18 (1), p.1-1

Private and Public Schools: Are they the same when it comes to plagiarism prevention?

Martine Peters & Tessa Boies

Université du Québec en Outaouais, Canada

In Canada, as in many other countries around the world, there is a two-tier system in education, where the more fortunate attend private high school while the ones who cannot afford this, attend public high schools. Research from many countries has found that students who frequent private schools have more access to better resources (libraries, sports and arts facilities, computer equipment, etc.) as well as newer pedagogy (Lefebvre, 2018), and more than 60% of parents who have a university degree (Larose et al., 2013). These students are also more likely to graduate from university, faster than their public-school counterparts (Lefebvre, 2018). Thus, it is not surprising to learn that certain researchers have compared the two systems and have determined that the private school students have been blessed with various socio-economic privileges that have given them a more solid foundation and a better preparation for higher education (Laplante et al., 2019; Maroy & Casinius Kamanzi, 2018).

In Quebec, where this research took place, students attend five years of high school. Then, they can go on to college where they can choose between a technical program (dental hygienist, engineering technician, etc.) or a two-year pre-university program. There are 384 public high schools and only 121 private high schools in Quebec (Gouvernement du Québec, 2022). Quebec private schools "choose" students through admission exams while public schools are mandated to accept all students (Hurteau & Duclos, 2017). A study by O'Grady et al. (2019) determined that students from socio-economic privileged backgrounds perform better in reading than children from less privileged backgrounds.

In our research, we were interested in examining whether there was a difference in how students are trained to prevent plagiarism in private and public schools. Peters and Cadieux (2019) stipulate that in order to prevent plagiarism, students need to develop informational, writing, and referencing skills. However, in their research, they found that out of 1170 Quebec undergraduate students, more than 85% perceive that their skills to prevent plagiarism need to be better developed. This suggests that high school and college training is flawed in plagiarism prevention for students who feel they are not sufficiently equipped to deal with plagiarism prevention in university.

Research objectives

And so the objectives of this research project were to examine

1) if students feel they have sufficiently developed their informational, writing and referencing skills to prevent plagiarism in their assignments.
2) if there is a difference between the private and public school students in their perception of the development of these skills.

Methodology

In the spring of 2022, focus groups (n=51) were done with high school, college and university students. The participants were asked a series of questions about how they had developed their informational, writing and referencing skills and in what type of establishment. At the same time, a questionnaire was distributed to high school students (n=297) with the same type of questions in order to have a bigger sample of responses. For the questionnaire, 57% of participants were from a public school while 43% were in a private school.

Results and conclusion

Results show clear differences between students in private and public schools in the development of their skills. Private school students report having learned extensively how to search for information and how to reference it while this is

not the case for public school students. Writing skills are developed in both types of schools but private school students state that they practise referencing which is not reported by public school students.

Our results indicate that there are differences between the two systems. This can only lead to problems as some students will have greater difficulties producing assignments if they do not have all the required skills to prevent plagiarism. As well, teachers will have to modulate their teaching to help students who still need to develop skills to write assignments without plagiarism.

This paper will be of interest to researchers who examine sociological differences in the field of academic integrity as well as practitioners and administrators who wish to have a discussion on the benefits or problems of having a two-tier system.

References

Gouvernement du Québec. (2022). *Banque de données des statistiques officielles sur le Québec - Établissements d'enseignement.* https://bdso.gouv.qc.ca/pls/ken/ken213_afich_tabl.page_tabl?p_iden_tran=REPERXRFMU85652770234%7DKiEe&p_id_raprt=3610#temps=2020-2021

Hurteau, P., & Duclos, A.-M. (2017). *Inégalité scolaire : le Québec dernier de classe?* Institut de recherche et d'informations socioéconomiques.

Laplante, B., Doray, P., Tremblay, É., Kamanzi, P. C., Pilote, A., & Lafontaine, O. (2019). L'accès à l'enseignement postsecondaire au Québec: le rôle de la segmentation scolaire dans la reproduction des inégalités. *Cahiers québécois de démographie, 47*(1), 49-80.

Larose, F., Grenon, V., Soung, S., Crête-D'Avignon, C., & Bolduc, G. (2013). Profil socioéconomique et attentes technologiques des parents d'élèves du réseau des établissements d'enseignement privés du Québec. *Rapport de recherche déposé à la Fédération des établissements d'enseignement privés, Sherbrooke, Université de Sherbrooke*.

Lefebvre, P. (2018). La contribution de l'école privée au Québec à la littératie et à la numératie des 15 ans: une analyse par effets de traitement. *L'Actualité économique, 94*(2), 123-174.

Maroy, C., & Casinius Kamanzi, P. (2018). Marché scolaire, stratification des établissements et inégalités d'accès à l'université au Québec. *Recherches sociographiques, 58*(3), 581-602.

O'Grady, K., Deussing, M., Scerbina, T., Tao, Y., Fung, K., Elez, V., & Monk, J. (2019). À la hauteur: résultats canadiens de l'étude PISA 2018 de l'OCDE. *Toronto: Conseil des ministres de l'Éducation*.

Peters, M., & Cadieux, A. (2019). Are Canadian professors teaching the skills and knowledge students need to prevent plagiarism? *International Journal for Educational Integrity, 15*(1), 1-16. https://doi.org/10.1007/s40979-019-0047-z

SEM Model the Cumulative Effect of Personality, Motivation, Students' Achievement, and Statistics Anxiety on Academic Dishonesty in Social Sciences Students

Yovav Eshet[1], Pnina Steinberger[2] & Keren Grinautsky[3]

[1] Interdisciplinary Studies, Zefat Academic College, Israel
[2] Orot Israel College of Education, Israel
[3] Faculty of Behavioral Sciences, Zefat Academic College, Israel

The COVID-19 pandemic compelled academic institutions worldwide to postpone or cancel presential lectures and move to distance online teaching. This has affected different educational aspects, including academic dishonesty that has increased dramatically worldwide (Erguvan 2021). Motivation has a pivotal role in students' disposition to academic dishonesty (Etgar et al. 2019). According to Self-determination theory (SDT) by Ryan and Deci (2020), motivation results from either internal or external incentives. Intrinsic motivation positively impacts self-confidence and responsibility, while extrinsic motivation relates to incompatible behaviors such as anxiety and indifference towards responsibility. Research also suggests that different personality traits determine different motivational orientations (Arniatika 2020). According to recent research (Zhang et al. 2020), academic dishonesty is also related to anxiety. As current academic training includes compulsory introductory statistics courses, some students develop Statistics Anxiety (Trassi et al. 2022). Statistics Anxiety can negatively influence learning and academic achievements, which are related to academic misconduct (Steinberger et al. 2021). Statistics Anxiety can also be highly influenced by dispositional character (Chiang et al. 2022).

Yet, studies on Statistics Anxiety, Academic Dishonesty and pandemic circumstances are scanty. This study aimed to fill this gap by asking: To what extent does the relationship among Statistics Anxiety, personality traits, previous achievements, and motivation affect academic dishonesty in different learning environments (Face to Face – F2F, Planned Online Learning - POE and Emergency Remote Teaching – ERT)? We hypothesized that Statistics Anxiety will mediate the relationship between Students' Personality Traits and Academic Dishonesty, and the relationship between Students' Previous Achievements and Academic Dishonesty. We also hypothesized that students' Motivation will mediate the relationship between Students' Personality Traits and Statistics Anxiety. Finally, we expected to find differences in these relationships between the three learning environments.

Participants were 649 undergraduates in Social Sciences in five Israeli academic institutions who enrolled in introductory Statistics courses, 93% were female, the mean age was 23.5 years. More than half of the students (59%) enrolled in POE, 18% in F2F, and 23% in ERT courses. Data were collected in two points in time. POE and F2F data were collected during 2019, before COVID-19. More POE and new ERT samples were collected in 2020, during the pandemic, before academic institutions formulated clear examination policies to transition to distance learning. Hence, respondents experienced ambiguity regarding the course's evaluation method (test or paper) and could not design unethical behavior strategies. Nor could they know whether the latter would take place on campuses or be carried out remotely electronically.

Academic Dishonesty was measured directly through the Academic Misconduct Scale (Bolin ,2004) and indirectly through the Academic Integrity Inventory (Kisamore et al., 2007). We used the Hebrew version of Cruise's et al. (1985) Statistics Anxiety Rating Scale (STARS). Motivational orientation was measured by the

Academic Self-Regulation Questionnaire (SRQ-A) (Ryan and Connell, 1989). We measured personality traits by the Ten Item Personality Inventory (TIPI) scale (Gosling et al., 2003). Previous academic achievements were measured according to students' high school mathematics level, grade point average, matriculation grade in mathematics, and course enrolment type. We analyzed the data using Pearson correlation and Structural Equation Modeling (SEM). The model was examined for goodness of fit using χ^2, comparative fit index (CFI), and root mean square error of approximation (RMSEA) fit indices. Reliability analysis was done as well.

The results of the structural model revealed no significant indirect effect between personality traits and Statistics Anxiety through the mediation of motivation in any of the learning environments. In line with our hypothesis, in both digital learning environments we found significant indirect effect between personality traits and academic dishonesty mediated by Statistics Anxiety. In these two samples Statistics Anxiety was the variable with the greatest impact on academic misconduct. This might be due to uncertainty and anxiety caused by the lack of a teacher's physical presence, which may directly impact students' ethical disinhibition. Moreover, in the POE sample we found a significant indirect effect between students' achievements and Statistics Anxiety through the mediation of motivation; and in the ERT sample we found a significant indirect effect between students' achievements and academic dishonesty through the mediation of Statistics Anxiety. In all three samples, personality traits were negatively correlated with Statistics Anxiety, but positively correlated with motivation in the ERT sample. In the F2F and POE samples Statistics Anxiety negatively correlated with motivation. In both ERT and F2F, the higher previous students' achievements were, the lower their level of Statistics Anxiety was.

Interestingly, gender was found to have a small but significant effect on Statistics Anxiety in the F2F sample only. Accordingly, women experience greater Statistics Anxiety than their male counterparts. Our sample contained a female majority, as the population of Social Sciences students in Israel include more women than men. Though this effect of gender on Statistics Anxiety was only present in one learning environment, it should be taken in consideration when concluding for future research.

This study revealed that learning environments (F2F, POE & ERT) affect and play a significant role in interacting with Statistics Anxiety, motivation, personality traits, and academic dishonesty. Our results highlight the social component of learning and the importance of teachers' and students' engagement, both for the well-being of students, their learning quality and for academic integrity. Thus, referring to academic institutions and lecturers, we suggest designing online courses according to student-centered approaches (Rapanta et al. 2020). These may include instructor's immediacy, improved communication pre-planned real-life based learning tasks, and continuous formative assessment. These can promote students' sense of self-competence and autonomy and potentially reduce dishonesty. Positive attitudes towards learning statistics are crucial to motivate students and awaken their interest, which can improve general class climate and academic performance.

The conference presentation will include a Power Point presentation with the main findings, with an emphasis on its linkage to recent literature and future outcomes.

References

Arniatika S (2020) Personality traits, motivational orientations and speaking achievement in the EFL context. Int J Indones Educ Teach 4:110–120

Bolin AU (2004) Self-control, perceived opportunity, and attitudes as predictors of academic dishonesty. J Psychol 138:101–114

Bromage A, Pierce S, Reader T, Compton L (2021) Teaching statistics to non-specialists: challenges and strategies for success. J Furth High Educ. http://dx.doi.org/10.1080/0309877X.2021.1879744

Chiang F, Zhu D, Yu W (2022) A systematic review of academic dishonesty in online learning environments. J Comput Assist Learn 1–22. http://dx.doi.org/10.1111/jcal.12656
Cruise RJ, Cash RW, Bolton DL (1985) Development and validation of an instrument to measure statistical anxiety. In: American Statistical Association Proceedings of the Section on Statistical Education. pp 92–97
Erguvan ID (2021) The rise of contract cheating during the COVID-19 pandemic: a qualitative study through the eyes of academics in Kuwait. Lang Test Asia 11:34. http://dx.doi.org/10.1186/s40468-021-00149-y
Etgar S, Blau I, Eshet-Alkalai Y (2019) White-collar crime in academia: Trends in digital academic dishonesty over time and their effect on penalty severity. Comput Educ 141:1–11
Gosling SD, Rentfrow PJ, Swann WB (2003) A very brief measure of the Big-Five personality domains. J Res Pers 37:504–528
Kisamore JL, Stone TH, Jawahar IM (2007) Academic integrity: The relationship between individual and situational factors on misconduct contemplations. J Bus Ethics 75:381–394
Rapanta C, Botturi L, Goodyear P et al (2020) Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. Postdigital Sci Educ 2:923–945
Ryan RM, Connell JP (1989) Self-regulation questionnaire. Unpubl. Manuscr
Ryan RM, Deci EL (2020) Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. Contemp Educ Psychol 61:1–11
Steinberger P, Eshet Y, Grinautsky K (2021) No anxious student is left behind: Statistics anxiety, personality traits, and academic dishonesty lessons from covid-19. Sustain 13:1–18. http://dx.doi.org/10.3390/su13094762
Trassi AP, Leonard SJ, Rodrigues LD et al (2022) Mediating factors of statistics anxiety in university students: a systematic review and meta-analysis. Ann N Y Acad Sci
Zhang H, Shi Y, Zhou ZE et al (2020) Good people do bad things: How anxiety promotes unethical behavior through intuitive and automatic processing. Curr Psychol 39:720–728. http://dx.doi.org/10.1007/s12144-018-9789-7

A Departmental Initiative for Developing Academic Integrity Practices in Students and Staff: Evaluating Processes and Training

Alexa Kirkaldy, Asima Iqbal, Lauren Schrock & Nicola Knowles

University of Warwick, UK

"Academic integrity encompasses principles, norms and regulatory frameworks instrumental for driving appropriate conduct in education and research" (Tauginienė et. al., 2019: 345). Hence to develop academic integrity practices in students and teaching staff within higher education requires a dynamic approach aligning strategies, processes, and training that are best viewed at the departmental level, which is situated between an individual view and university perspective to academic integrity. Yet there are several challenges to the implementation of a holistic programme within a department to develop academic integrity in students and staff. For instance, aligning departmental and university strategies to ensure consistency in the promotion of academic integrity as a value of the learning community, standardising processes for the escalation of academic misconduct across degree levels and programmes to maintain fairness, and full participation of students and staff in active learning of academic integrity. Therefore, to address these challenges with proposed solutions that contribute to the development of academic integrity at the departmental level, the presentation addresses the following research question: "How is academic integrity approached within a large department at a university to improve the academic integrity practices of students and staff?"

To answer this research question, the presentation utilises the case of a large department at a UK university in which there are over 250 educators, including postgraduate researchers who teach and external associates. There are also over 2750 students on various programmes, including degree apprentices, part-time and full-time studies at undergraduate and postgraduate level. There are several challenges shared amongst staff and students that prompted improvements to the training and processes of academic integrity. For example, staff and students are similar in that their levels of competency vary for evaluating academic integrity and inconsistency in the application of a singular referencing style. In addition, a new university regulation on academic integrity incited a departmental initiative for improving academic integrity practices.

Therefore, for the 2022-2023 academic year, there were several proactive innovations to the processes and training of academic integrity within the department based on analysis of data collected the previous academic year. These innovations include the development of a recommended online course released to new students across programmes to learn, alongside robustly developed study skills programmes, and including academic integrity as part of their induction to their degree. The online course included an activity in which students can directly receive their Turnitin report for a draft of their first assignment to check academic integrity. Additional implementations included mandatory training for all educators, including postgraduate researchers who teach and external associates, to ensure consistent interpretation of Turnitin reports when evaluating academic integrity in student assessment and implementing one recommended referencing style for the entire department. Also, students are invited to drop-in sessions and to participate in face-to-face learning activities relating to academic integrity. These activities are supported by robust restorative activities for students who may need additional

support to develop academic integrity practices. Due to the recent implementation of these departmental actions, the presentation provides an early evaluation of these innovations to develop academic integrity practices of students and staff. Hence this work-in-progress is part of a substantial institutional evaluation to capture the qualitative and quantitative impact of these innovations to address academic misconduct issues and assessment of academic integrity.

Overall, the presentation is an initial evaluation of a departmental programme for academic integrity focusing on innovations to academic processes and training that support students and staff to achieve a high level of interpretation and evaluation of academic integrity that is consistently followed throughout the submission and assessment of student work. This is a significant contribution to evaluate academic integrity at the departmental level considering the scale and alignment between students and staff in the understanding and application of academic integrity. This is important to ensure academic integrity is consistently adhered to and valued by students and staff to achieve departmental and university strategic aims.

References

Tauginienė, L., Gaižauskaitė, I., Razi, S., Glendinning, I., Sivasubramaniam, S., Marino, F., Cosentino, M., Anohina-Naumeca, A. & Kravjar, J. (2019), Enhancing the Taxonomies Relating to Academic Integrity and Misconduct, *Journal of Academic Ethics,* 17 (4), 345-361

Where do we make mistakes? – Text Matching Software Implementation in Georgian Higher Educational Institutions

Giga Khositashvili

School of Education, Ilia State University, Georgia

Educational institutions that aim to create and transfer knowledge declare the principles of Academic Integrity as key components. Due to the increased number of plagiarism cases Higher Educational Institutions (HEIs) are using different text matching systems that have been developed in the last two-three decades (Turnitin; Urkund; Grammarly; Unicheck; Plagscan, etc.).

In recent years some significant changes have been made with regards to Academic Integrity in Georgian HEIs. The institutional accreditation standards were introduced in 2017, according to which (2.3 ethics and integrity) each institution should have clearly defined policy and mechanisms for detection and prevention of plagiarism (Higher Educational Institutions Authorization Standards, 2017). Moreover, the study program accreditation standards also check the students' support services and the way their learning outcomes are assessed, that said, if the principles of Academic Integrity are met. Those standards are based on guidelines for the quality assurance in the European Higher Educational Area (ESG).

In 2018 the majority of Georgian HEIs got license to text matching software (PAICKT Project, 2021) and each university should have already designed the policy together with the mechanism to prevent and detect the plagiarism. In this study, we will try to find out what are the current tendencies and obstacles with regards to the usage of similarity detection tools.

Quite often the academic staff is not open to changes, especially when it is related to technology implementation (Hayne, 2008). The technology integration into education might create new factors that determine the quality of the whole process itself. In addition to integrating the academic staff in the decision-making process when implementing new software, it is crucially important to pilot this change with a small group before the entire system (Zhou, G., & Xu, J., 2007). Some of the reasons why academic staff often resist change might be the fear that the quality of the teaching/course will decrease due to the incorrect and/or insufficient instruction, which in turn threatens the reputation of the course leader (Johnson, 2012). Sometimes the misunderstanding of the functionality of e-tools might decrease its effectiveness (Mphahlele, A., & McKenna, S., 2019).

A similar study that had been conducted in USA (Meyer, P., 2018) became an inspiration to conduct research from the alike perspective in the country of Georgia. We will use the same Hooper and Rieber's theory (Hooper and Rieber, 1995) when analyzing the outcomes of the research. The model defines five steps of technology adaptation: Familiarization, Utilization, Integration, Reorientation, Evolution.

We will try to find out whether the HEIs went through all those five steps by analyzing the institutional and study program accreditation reports. Although the framework was designed even before the technological enhancement, we expect it would be reasonable to be used in the given study, as it might explain the recent tendencies.

Within the research the following research questions will be answered:

- What were the main challenges in Georgian HEIs when using the text matching software in recent two years?
- How is the role of the text matching software defined in Georgian HEIs? (detection vs prevention)

In the given study we will use a quantitative research method, more specifically a document analysis (Bowen, G. A., 2009) and in-depth interviews. We will analyze the institutional and study program accreditation reports of GE HEIs, that have been prepared in the frame of external quality assurance process. All institutional accreditation reports from recent two years (2021-2022) will be analyzed. In addition to this, we will select three study program accreditation

reports from each GE HEIs from the same year. All the reports are freely accessible on the web-page of the National Center for Educational Quality Esurance (eqe.ge). According to the scope of this research, in the reports we will only focus on the discussions with regards to Academic Integrity and Plagiarism. In order to get more details on the later stage we will interview five experts (local professors who are involved in the external quality assurance process) to get more insights regarding the outcomes from the previous step. Maximal variation model will be used when selecting the experts, meaning to have each from different universities (state, private, regional and non-regional).

The expected outcome of the study is to assess the practice of text matching software usage in Georgian HEIs. We will try to identify how successful the implementation and usage process was (according to the external quality assurance mechanisms) and discuss whether it was done just for formality – like to meet the requirements of the local legislation rules or this was more on a purpose to enhance the quality of teaching and learning. The collected data will give a chance to analyze and determine whether those practices were detection oriented (therefore focused only on punishment) or it aimed to promote the prevention culture.

The data collection is planned to be conducted in April-May 2023. The outcomes will be presented in the conference as a presentation (Face-to-Face). The target audience for this topic would be both researchers and teaching/administrative staff of the university responsible for text matching software maintenance (especially those coming from Post-Soviet and Balkan countries).

References

Authorization Standards for Higher Educational Institutions – National Center for Educational Quality Enhancement
Georgia https://bit.ly/3QPH06x

Bowen, G. A. (2009). Document analysis as a qualitative research method. Qualitative Research Journal, 9(2), 27-40. doi:10.3316/QRJ0902027

Haynes, T. (2008). The three-E strategy for overcoming resistance to technological change. *Educase Quarterly*, 31(4), 67–69.

Hooper, S., & Rieber, L. P. (1995). Teaching with technology. In A. C. Ornstein (Ed.), Teaching: Theory into practice, 154-170. Needham Heights, MA: Allyn and Bacon.

Johnson, T., Wisniewski, M. A., Kuhlemeyer, G., Isaacs, G., & Krzykowski, J. (2012). Technology Adoption in Higher Education: Overcoming Anxiety through Faculty Bootcamp. Journal of Asynchronous Learning Networks, 16(2), 63–72.

Meyer, P. (2018). *Adoption of Plagiarism Detection Software by College Faculty* Available from ERIC. (2396824140; ED599503). https://bit.ly/3ZPQ0Ma

Mphahlele, A., & McKenna, S. (2019). The Use of Turnitin in the Higher Education Sector: Decoding the Myth. Assessment & Evaluation in Higher Education, 44(7), 1079–1089.

The Standards and guidelines for quality assurance in the European Higher Education Area (ESG) https://bit.ly/3KYbHpd

Zhou, G. & Xu, J. (2007). Adoption of Educational Technology: How Does Gender Matter? International Journal of Teaching and Learning in Higher Education, 19(2), 140-153.

(2021). (rep.). Project on Academic Integrity in Armenia, Azerbaijan, Georgia, Kazakhstan and Turkey. Vol. 6, Ser. Council of Europe Platform on Ethics, Transparency and Integrity in Education. 1–84.

CONSULTATION ON STUDENT USE OF ARTIFICIAL INTELLIGENCE TOOLS

Irene Glendinning, Lisa Ganobcsik-Williams & Julie McCall

Coventry University, UK

In March 2022, a working group was established at Coventry University to explore software tools and web sites offering free or low-cost services for generating, translating and paraphrasing text and checking grammar. The aim of the working group was to generate guidance and policies to apply across the University, to clarify to staff and students what use of particular tools should be allowed, what should be proscribed and what controls could be exercised over student use of these tools in their assessed work. The motivation for setting up this activity was concern about the growing potential for inappropriate use by students and the increasing prospect that this form of academic misconduct would not be detected (Groves & Mundt, 2021; Fitria, 2021; Shepherd, 2022).

The urgency for convening the working group had increased after a step-change in the capabilities to generate good quality outputs following the release of the GPT-3 training set for training artificial intelligence tools (Sharples, 2022). In addition, the diversity in types of outputs that could be generated by AI tools (graphics, computer code, maths solutions, music, artworks, videos, presentations and more) meant that all academic subjects were affected (Kumar et al., 2022).

The working group members self-selected based on membership of the University-wide Academic Integrity Steering Group and interest in the topic. The members included the AISG chair, representatives from the Centre for Academic Writing, librarian, student union, academic conduct officers from different subject areas, including academic English, IT services representative and educational technologist.

The need for urgent action became more apparent after 30th November 2022 when ChatGPT, trained on GPT-3.5, was released in beta and made freely available for public use (OpenAI, 2022). After this point the remarkable improvement in the conversational responses and quality of the outputs from the AI began to attract more attention of the popular press (for example: Williams, 2022). By this time ethical approval had been granted for a consultation with staff and student representatives, which will be started in January 2023.

The objectives of the consultation are to

- To raise awareness of evolving, new and emerging threats to academic and research integrity, particularly, but not confined to, tools that include artificial intelligence
- To gather views from a wide range of people about whether such tools should be allowed to be used by students, if so under what circumstances
- To (superficially / tentatively) investigate any software tools or web sites that are identified as potentially posing a risk to integrity of student assessment or admissions
- To explore potential for identifying and detection of inappropriate use of such tools, what characteristics can be used as indicators?
- To collect sufficient information from across the Group, students and staff, to inform guidance notes for staff and students and any related changes to regulations
- To share our experiences with other people through at least one conference presentation and journal paper.

Working group members and a few co-opted colleagues (teams of 2 or 3 people) have the role of focus group facilitators and scribes. At the time of writing this abstract the consultations are just about to start, therefore the process is described in present and future tense.

Details and dates of the consultations will be sent to parts of the University starting in early January 2023, inviting volunteers to contact the local

facilitators. Volunteers will then be sent an informed consent form and more details about the session. Participants in each session should consist of 5-10 participants (groups of staff or students from different parts of the University) and a team of facilitators. Each session will begin with a 20-minute voiced-over PowerPoint setting the scene, with examples of outputs from various AI tools, describing possible legitimate uses and inappropriate uses. The second stage is to conduct a 40-60-minute focus group using a set of fout prompts, which can be found in the appendix.

It is hoped to conduct most of the sessions in person, face-to-face, but some remote sessions would be possible using Teams or Zoom. There will be no audio or video recording. The facilitators and scribes are not interested in verbatim responses, they will take notes and record just the salient points that arise in response to each prompt. All participants are anonymous, but we record which part of the University each focus group represents and some idea of participants' roles (academic, admin, student, faculty base, etc.) to ensure the feedback can be contextualised.

After the focus group, participants will be given a link to a JISC online questionnaire, for them to share more details if they wish to add to what they said in the focus group. The questionnaire has largely open questions, all except the first question (date of focus group) are optional. The questionnaire will also be available to University staff and students who were unable to attend a focus group, but wish to contribute their ideas and thoughts.

After analysing all the feedback from focus groups and questionnaires, the working group members will formulate guidance notes for staff and students. Any necessary adjustments to regulations will be drafted at the same time. The guidance notes and proposed regulatory changes will be circulated for further comment before being formally approved, for adoption at the start of the 2023-24 academic year, in September 2023.

At the conference in July 2023 working group members will share their experiences of conducting the consultation and also what guidance and related changes have been generated.

References

Fitria, T. N. (2021). QuillBot as an online tool: Students' alternative in paraphrasing and rewriting of English writing. *Englisia: Journal of Language, Education, and Humanities, 9*(1), 183-196. https://doi.org/10.22373/ej.v9i1.10233

Groves, M., Mundt, K. (2021). A ghostwriter in the machine? Attitudes of academic staff towards machine translation use in internationalised Higher Education, Journal of English for Academic purposes, Vol 50, March 2021. https://doi.org/10.1016/j.jeap.2021.100957

Kumar, R., Mindzak, M., Eaton, S. E., Morrison (2022). *AI & AI: Exploring the contemporary intersections of artificial intelligence and academic integrity*. Canadian Society for the Study of Higher Education Annual Conference.

OpenAI (2022). ChatGPT: Optimising Language models for Dialogue. 30th November 2022. https://openai.com/blog/chatgpt/

Sharples, M., (2022). New AI tools that can write student essays require educators to rethink teaching and assessment. LSE blog, 17th May 2022. https://blogs.lse.ac.uk/impactofsocialsciences/2022/05/17/new-ai-tools-that-can-write-student-essays-require-educators-to-rethink-teaching-and-assessment/

Shepherd, T. (2022). Use of Grammarly in Year 12 English Exams advantages some students, senior teacher says. The Guardian, 15th Nov 2022. https://www.theguardian.com/australia-news/2022/nov/15/use-of-grammarly-in-year-12-english-exams-advantages-some-students-says-senior-teacher

Williams, T. (2022). ChatGPT assessed as 'powerful tool for education if used correctly'. Times Higher Education, p8, 22nd December 2022.

Appendix: Focus group prompts

1. Questions about prior knowledge and experience

1.1 How much do you know about these tools? Please share your experiences.
1.2 Have you ever found evidence that a student has used any of these tools to gain an unfair advantage in an assignment, test or exam? Please share your experiences.
1.3 Do you consider any of these tools or devices to be a threat to academic integrity? Why?
1.4 What action do you think we should take about this?
1.5 What guidance should we provide for staff? And students?

2. Please share your knowledge about other threats to academic integrity that we have not talked about.
3. Please share your ideas on approaches to deterring academic misconduct that we've not discussed.
4. Please share your ideas on approaches to detecting and evidencing academic misconduct that we have not talked about so far.

Parallel Session 4 | Room 4

TESTING A STUDENT-DEVELOPED ACADEMIC INTEGRITY FORENSIC TOOL TO ANALYSE ACADEMIC MISCONDUCT

Zander Janse van Rensburg, Neels Kruger & Johan Venter

North-West University, South Africa

In higher education, academic integrity is a cornerstone of higher learning, and the maintenance of ethical standards by students is vital to preserving the reputation and credibility of the institution. Plagiarism, cheating, and other forms of academic dishonesty have become more commonplace, making academic misconduct an increasingly urgent problem to mitigate in higher education. Additionally, AI-assisted writing technologies will only increase, significantly impacting sustainable strategies to adapt to such technological revolutions (Ouyang, et al., 2022). To effectively address academic misconduct in future, institutions will therefore have to develop policies to reduce and manage technological innovation (Xieling, et al., 2022). This will require developing, using and understanding sophisticated tools for detecting and investigating dishonesty in writing.

To create such preventative measures, a group of masters and honours students at the North-West University, South African, were assigned to develop a software prototype for a forensic platform named Similabs. Similabs is designed to accommodate academic staff members in investigating and reporting academic misconduct per the newly developed standard operating procedure (SOP) for reporting academic misconduct. Similabs is, therefore, intended to be used as a secondary measure in addition to tools such as Turnitin. The goal is to provide a comprehensive analysis of the text of assignments, including software artefacts developed, and to assist academic staff members in better understanding the characteristics of academic misconduct.

In designing the forensic platform, we follow a process-oriented technique that allows for the interchangeable application of various functions in the analysis of multiple aspects of a given text. Functional elements focus on author attribution, including the choice of words, the structure of sentences, instances of similarities in writing style, and anomalies in writing style. Another critical feature of the platform is the ability to analyse text in multiple languages. This is particularly important at multilingual universities such as NWU, where a diverse student body may submit work in various languages. Through user-friendly interfaces, this feature allows for greater flexibility and accuracy in detecting academic misconduct, eliminating the need for staff members to translate text manually. The software is thus designed to be intuitive and straightforward, with clear instructions and explanations for each step of the analysis process, making it easy for staff members to quickly and efficiently investigate instances of academic misconduct. The current software version has three main features that feed one another to be integrated into a report: Quick Text Comparison, Extensive Text Comparison, and Stylometry.

Quick Text Comparison requires the user to upload a source document and comparison document, select the comparison algorithm (line, sentence, or substring), and specify the length of the substring. The user can choose between Jaccard Similarity and Cosine Similarity, with the former being best for direct similarities and the latter for similarities in paraphrased text. The result will show a comparison of the source and

comparison documents, highlighted with similarities and a percentage of text similarity. This function is often used to detect various forms of plagiarism.

For Extensive Text Comparison, the user must upload a source document and a corpus. The result will compare the source and documents in the corpus, highlighted with similarities and a percentage of text similarity. Again, the user can choose between two analysis methods: Latent Semantic Analysis (LSA) and Term Frequency-Inverse Document Frequency (TF-IDF). LSA is a method in natural language processing that analyses the relationships between a set of documents and the terms they contain, uses Singular Value Decomposition to convert a large piece of text into a matrix and compares documents through the cosine of the angle between two vectors. It can measure the conceptual similarity between documents and detect instances of collaboration. On the other hand, TF-IDF is a numerical statistic that measures the significance of a word to a document in a collection or corpus and is commonly used as a weighting factor in information retrieval, text mining, and user modelling searches, which can measure direct similarities in a corpus.

For the stylometry comparison, the user must upload a source document and a corpus to determine authorship, producing stylometry statistics and a clustering chart. The application has three outputs based on the corpus. First, the Burrows' data value of the source document compared to all the documents in the corpus with a value between 0 and 3. The higher the value, the less likely it is that the student who submitted the document is the document's author. Second, Receiver Operating Characteristic (ROC) Curve indicates how well the analysis is performed using cross-validation. Lastly, The stylistic similarities between the documents in the corpus are visualised by calculating their differences and using Principle Component Analysis (PCA). Z-scores, representing the "fingerprint" of each document, are then calculated for the top 50 most common words used in every document. Ideally, the same authors will be clustered together.

Our presentation showcases a successful development project involving students who designed measures to promote academic integrity at the university. This project serves as an example of effective student involvement in promoting academic integrity. We also aim to illustrate how our software can be integrated into the Institutional SOP to address cases of academic misconduct, which is an important contribution to the field. While obtaining documents through institutional channels is our primary approach, we acknowledge that obtaining documents may pose a challenge in certain cases, and we will explore the possibility of using a database of documents to support our analysis. Additionally, we will share the preliminary results for a mock dataset of our software testing conducted during the first semester of 2023, further highlighting the benefits and effectiveness of our software solution.

In conclusion, the forensic platform students developed can be considered a valuable tool for addressing academic misconduct and student skill development. The software's ability to analyse text in multiple languages, authorship attribution capability and user-friendly interface make it a valuable asset for staff members in their efforts to maintain academic integrity at the university. Thus, it is anticipated that using software such as Similabs, especially with the functionality provided, will assist in misconduct investigative processes, and provide data that could inform future teaching and learning practices.

References

Ouyang, F., Zheng, L., & Jiao, P. (2022). Artificial intelligence in online higher education: A systematic review of empirical research from

2011 to 2020. *Education and Information Technologies*, *27*(6), 7893-7925.

Xieling, C. H. E. N., Di, Z. O. U., Haoran, X. I. E., Cheng, G., & Caixia, L. I. U. (2022). Two decades of artificial intelligence in education: Contributors, collaborations, research Topics, challenges, and future directions. *Educational Technology and Society*, *25*(1), 28-47.

"Be clear about being unclear": Ambiguous assessment briefs resulting in misinterpretations and academic misconduct.

Shiva D Sivasubramaniam[1], Salim Razi[2] & Zeenath Khan[3]

[1]University of Derby, Derby

[2]Canakkale Onsekiz Mart University, Canakkale, Türkiye

[3] Faculty of Engineering and Information Sciences, University of Wollongong in Dubai, Dubai, UAE

Academic integrity and plagiarism avoidance have always been the focus in higher education (HE) to uphold intellectual honesty and transparency. The focus on deterring plagiarism gained momentum in 1997 (at least) in countries that took part in the development, launch and use of the first text matching software that was co-developed by i-Paradigm, JISC (Joint Information Systems Committee) and Northumbria Learning (Badge & Scott, 1999; Duggan, 2003). Currently, the HE sectors worldwide have taken additional measures to minimise the likelihood of academic misconduct cases amongst staff as well as students. Most of these interventions are student focussed, aiming to develop a culture within the student community to become ethically sound individuals (Darling-Hammond et al., 2020).

As for plagiarism prevention, there is a plethora of studies on using a variety of software tools that can be employed as teaching tools to minimise likelihood of students engaging in academic misconduct, especially plagiarism (Hayden et al., 2021; Johnson et al., 2022; Perkins et al., 2020). There are a few studies that have explored ways to deter plagiarism (or reduce the chances to plagiarise) by effective assessment strategies including feedback-led continuous assessment, reflective assessments etc. (Khan et al., 2021; Razı, 2023; Sivasubramaniam, 2013, 2014). Interestingly, questions remain about whether authentic assessments themselves can deter the chances of student plagiarism or not. If so, how can this be achieved? In fact, Hughes and MCabe (2006) argue that authentic assessment methods coupled with clear assessment briefs will reduce academic misconduct. One approach is to re-imagine the ways we assess student learning by understanding how students think, learn, and understand the instructions/assessment briefs. This includes

(a) designing assessments for reflective application (as opposed to knowledge reproduction),

(b) providing unambiguous assignment requirements, and

(c) producing authentic assessments (that are not recycled year-on-year) (James et al., 2002; University of Surrey, n.d.).

Despite the continuous monitoring and careful mentoring by quality managers, there were some reported incidences of ambiguous assessment briefs contributing to student misconduct. This issue was further aggravated during the Covid-19 pandemic, when academics tried to transform traditional invigilated face-to-face assessments to unsupervised online tests (Holden et al., 2021; Khan et al, 2021).

The authors, as members of the ethics and integrity advisory working group (EIAWG) of European Network for Academic Integrity (ENAI), in their capacity as educational advisors in different institutions, have dealt with several misconduct cases resulting from poor instructional guidelines. It is still not clear whether the assessment and their briefs are effectively produced with clear instructions about what is expected from the students (a) regarding literature surveys, (b) using data from collaborative group work, (c) using internet resources etc.

This presentation aims to revisit examples of ambiguous assessment briefs from different institutions worldwide and their role in contributing to plagiarism and academic

misconduct cases. Plagiarism is more prevalent in some forms of assessment, especially in unsupervised knowledge reproducing evaluations which give the temptation to 'google' answers. These types of questions may be unavoidable in lower National Qualification Framework (NQF) levels, such as pre-university foundation degrees, and first year of entry to higher education. It is appropriate for these assessments to be offered as invigilated/supervised tests. During the pandemic, institutions were forced to offer these assessments online. Our presentation would highlight reported cases of how the so called "restricted as time constraint exams" have provided (a) opportunities for cheating and (b) affected the performance of students with specific learning difficulty (SpLD). For example, in online multiple-choice tests, questions were linked to a specific time (usually 3 seconds), which was clearly stated in the assessment briefs. It was thought this would minimise the time needed to 'google' the answers. However, some students obtained help from their friends/family with the searches. Although it is difficult to prove this is a form of exam cheating, many universities reported an increase in high performance in MCQs. On the other hand, at least in some countries, students with special needs were not able to complete the task in time. We will discuss these examples in our workshop.

On advanced NQF levels such as second, and final years of undergraduate studies (with a lesser extent of level 7 - post-graduates), some institutions (within UK) offered a slightly modified version of 'open book online tests' where the assessment briefs stated, "answers/information obtained from other sources should be properly acknowledged" and "Any unacknowledged information will be considered as academic misconduct" (source anonymised). As a result, there were incidents where students cut and pasted small paragraphs and gave proper attributions and references. These students claimed that they had followed the assessment brief. In this case, the questions should have been intellectually challenging for the students to apply their knowledge. Furthermore, there should have been a clear definition about the limitations of "open book test" offered. The accepted definition of an open book "allows referring the notes and consult reference/course materials" (as defined by Merriam-Webster (2023) online dictionary), students' claims were deemed to be acceptable. Similar examples of academic misconduct, especially plagiarism, resulting merely from ambiguous assessment briefs, inappropriately transformed online assessments will be presented in this session. It will also discuss ways to reduce ambiguity in assessment briefs.

References

Badge, J., & Scott, J. (2009, November). Dealing with plagiarism in the digital age. *Higher Education Academy EvidenceNet.* http://evidencenet.pbworks.com/w/page/19383480/Dealing%20with%20plagiarism%20in%20the%20digital%20age

Darling-Hammond, L., Flook, L. Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science, 24*(2), 97-140.

https://doi.org/10.1080/10888691.2018.1537791

Duggan, F. (2003). The Plagiarism advisory service. *Library and Information Research, 27*(86), 37-42. http://www.lirg.org.uk/lir/pdf/article86d.pdf

Hayden, K. A., Eaton, S. E., Pethrick, H., Crossman, K., Lenart, B. A., & Penaluna, L. A. (2021). A scoping review of text-matching software used for student academic integrity in higher education. *Education Research International, 2021,* 4834860. https://doi.org/10.1155/2021/4834860

Holden, O. L., Norris, M. E., & Kuhlmeier, V. A. (2021). Academic integrity in online assessment: A research review. *Frontiers in Education, 6,* 1-13. https://doi.org/10.3389/feduc.2021.639814

Hughes, J. M. C., & McCabe, D. L. (2006). Understanding academic misconduct. *Canadian*

Journal of Higher Education, 36(1), 49–63. https://doi.org/10.47678/cjhe.v36i1.183525

James, R., McInnis, C., & Devlin, M. (2002). *Assessing learning in Australian universities: Ideas, strategies and resources for quality in student assessment.* Centre for the Study of Higher Education, The University of Melbourne and the Australian Universities Teaching Committee, Canberra. https://nla.gov.au/nla.cat-vn809125

Johnson, C., Davies, R. & Reddy, M. (2022). Using digital forensics in higher education to detect academic misconduct. *International Journal for Educational Integrity, 18*(12), 1-19. https://doi.org/10.1007/s40979-022-00104-1

Khan, Z. R., Sivasubramaniam, S., Anand, P., & Hysaj, A. (2021). 'e'-thinking teaching and assessment to uphold academic integrity: Lessons learned from emergency distance learning. *International Journal for Educational Integrity, 17*(17), 1-27. https://doi.org/10.1007/s40979-021-00079-5

Macfarlane, B., Zhang, J., & Pun, A. (2014). Academic integrity: A review of the literature. *Studies in Higher Education, 39*(2), 339-358. https://doi.org/10.1080/03075079.2012.709495

Merriam-Webster. (2023). *Online dictionary.* https://www.merriam-webster.com

Perkins, M., Gezgin, U. B., & Roe, J. (2020). Reducing plagiarism through academic misconduct education. *International Journal for Educational Integrity, 16*(3), 1-15. https://doi.org/10.1007/s40979-020-00052-8

Razı, S. (2023). Emergency remote teaching adaptation of the anonymous multi-mediated writing model. *System, 113,* 102981. https://doi.org/10.1016/j.system.2023.102981

Sivasubramaniam, S. D. (2013). Sustainability in student engagement – Assessing the impact of formative 'feed-forward' on reflective learning. In the *Proceedings of the HEA STEM Learning and Teaching Conference*. https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/hea/private/bio-074_0_1568037083.pdf

Sivasubramaniam, S. D. (2014). "Perfecting the plagiarist": Feedback based continuous assessment strategy to enhance good academic writing. In the *Proceedings of 6th International Integrity & Plagiarism Conference; Promoting authentic assessment*, 16th - 18th June Newcastle, UK.

University of Surrey. (n.d.). *Designing out plagiarism: A brief guide for busy academics.* https://www.surrey.ac.uk/cead/resources/documents/Designing_out_plagiarism.pdf

What can professional certification and academic integrity learn from each other?

John Kleeman

Questionmark Computing Limited, UK

Both academic integrity and professional certification have become increasingly important in today's society. Anyone can claim to have expertise, but employers and educational institutions place a high value on individuals who have demonstrated their knowledge and skills through certification or equivalent academic achievement.

This presentation suggests ways in which the academic integrity community and the professional certification community can learn from each other in the post-covid era.

The academic integrity community for this context includes academics and scholars in Higher Education working on academic integrity and those in Higher Education who are responsible for exams and other assessments for students.

The professional certification community includes those delivering IT certification or job proficiency exams (e.g. in the accountancy, medical, finance or aviation sectors). These standardized assessments are conducted for a particular company, industry or for a particular awarding body. The professional certification community coalesces around organizations such as the Association of Test Publishers (ATP), the Institute of Credentialing Excellence (ICE) and the Information Technology Certification Council (ITCC) for guidance in protecting the integrity of the assessment process.

Similarities between the two communities include:

- Both seek to evaluate knowledge and skills of participants.
- Both rely on tests and exams to ensure participants meet required standards.
- Both are interested in the best way of creating fair, valid and reliable tests and exams.
- Both seek to encourage a culture of ethical behavior, where individuals are held accountable for their actions and are encouraged to act with integrity and honesty.
- During the covid era, both academic exams and professional certification exams moved online and remote at a rapid pace.
- Both seek to reduce cheating and other kinds of test fraud to ensure that the results of assessments can be relied on, particularly with remote assessments.
- Both communities are increasingly focusing on inclusivity and equity.

Differences between the two communities include:

- Professional certification programs typically focus on specific skills which are relevant to a particular industry or profession, while academic exams are concerned with measuring skills acquired through formal education.
- The stakes of professional exams are usually higher than in universities and colleges, as society may be put at risk if someone cheats at an exam for professional context, for example if an elevator maintenance engineer cheats at a test (NBC, 2022), there could be injury or death.
- The types of tests given can vary. For example, the use of take-home essays is common in academic assessment, but uncommon in professional certification.
- The academic community focuses on its students' learning and development whereas the professional testing community focuses on measuring skills.
- The academic community relies on research whereas the professional testing community is less so. As an example, there is a body of research on the

prevalence of cheating within academia, but much less within professional exams.

There have been changes due to COVID in these areas, particularly as both communities have moved towards more remote testing, which introduces different integrity risks.

A crucial synergy between the communities is that students at universities and colleges often go into the world of work, where they will take professional certifications. If they have learned to take exams with integrity in higher education, then it is more likely that they will take them with integrity in the workplace. And as a corollary, if they have got used to cheating on exams in higher education, they are more likely to do the same in workplace exams (Guerrero-Dib, J.G., Portales, L. & Heredia-Escorza, Y. 2020, Nonis & Owens Swift 2001, Sims 1993). Additionally, if testing gets a bad name in society, it will impact both communities negatively.

The professional certification community are often not aware of academic integrity research because it is rarely cited at ATP, ICE or ITCC conferences. Similarly, publications from professional societies are often not framed in academic terms, which suggests that the academic integrity community may not be aware of these additional resources.

This presentation will highlight work in professional certification that may be useful to the academic integrity community, including some of the technological approaches used to improve exam integrity and to address inclusivity and equity issues. The presentation will also cover the latest guidance on security from the ATP and International Test Commission (ITC) 2022 Technology-Based Assessment Guidelines (International Test Commission and Association of Test Publishers, 2022). These Guidelines offer a range of measures to stop cheating from prevention, to deterrence as well as detection/response.

The presentation will also highlight areas of work in academic integrity that could benefit the professional testing community. The scholarly research on the prevalence of cheating behaviours, and the suggested approaches to communicating with students could be applied to professional testing to minimize cheating. Many industries are focused on integrity and could learn from academic integrity research on how to encourage individuals to behave with integrity when taking exams. For example, the accounting industry (Chartered Institute of Management Accountants (2020)) has integrity as a foundational principle, but during 2022, there have been a series of scandals (e.g. U.S. Securities and Exchange Commission, 2022) where accountants have been found to be cheating on ethics or other exams.

In conclusion, professional certification and academic integrity play a crucial role in ensuring that individuals have the necessary knowledge and skills to succeed in their chosen field. By learning from each other and improving their practices post-covid, professional certification and academic integrity can work together to benefit both employers and educational institutions, as well as the individuals themselves and society.

Delegates who attend the session will learn where professional certification may assist work in academic integrity and where those working in academic integrity could provide value to the professional certification community.

References

Chartered Institute of Management Accountants (2020). CIMA Code of Ethics for Professional Accountants Retrieved from https://www.cimaglobal.com/Professionalism/Ethics/CIMA-code-of-ethics-for-professional-accountants/.

Guerrero-Dib, J.G., Portales, L. & Heredia-Escorza, Y. (2020). Impact of academic integrity on workplace ethical behaviour. Int J Educ Integr 16, 2. https://doi.org/10.1007/s40979-020-0051-3

International Test Commission and Association of Test Publishers (2022). Guidelines for technology-based assessment. Retrieved from https://www.testpublishers.org/white-papers.

NBC. (2022, November 3). 10 Charged in Scheme to Falsely Obtain Elevator Repair Certificates in Miami-Dade. NBC. Retrieved from https://www.nbcmiami.com/news/local/10-charged-in-scheme-to-falsely-obtain-elevator-repair-certificates-in-miami-dade/2899857/

Nonis S. & Owens Swift C. (2001) An Examination of the Relationship Between Academic Dishonesty and Workplace Dishonesty: A Multicampus Investigation, Journal of Education for Business, 77:2, 69-77, DOI: 10.1080/08832320109599052

Sims R.L (1993) The Relationship Between Academic Dishonesty and Unethical Business Practices, Journal of Education for Business, 68:4, 207-211, DOI: 10.1080/08832323.1993.10117614

U.S. Securities and Exchange Commission. (2022). Ernst & Young to Pay $100 Million Penalty for Employees Cheating on CPA Ethics Exams and Misleading Investigation. Retrieved from https://www.sec.gov/news/press-release/2022-114.

Forewarned is forearmed? Designing an online, self-access pre-arrival module on academic integrity

Sarah Taylor

Academic and Professional Development, London School of Economics, UK

This presentation describes an academic integrity module that was part of an online self-access pre-arrival course designed to help students prepare for their degree programmes at the London School of Economics and Political Science (LSE). The pre-arrival course was first created for our 2020-2021 intake because of concerns that students might not feel prepared for university study after disruption to their education due to the COVID-19 pandemic, and in light of Thomas's (2011) finding that students with a greater knowledge of higher education and more academic preparation were more likely to be successful in their studies. The course was further developed over the next two years based on feedback from students and staff. The most recent (2022 entry) iteration of the course comprised two versions – one for undergraduates and one for postgraduates – containing sections on academic literacy, digital tools, community and inclusion, and further support.

Although the course had always included material on using sources appropriately, I decided that a whole module on academic integrity would be helpful in terms of flagging the importance of maintaining academic integrity, because a self-contained module on academic integrity could easily be shared with students at opportune moments throughout the year (not just pre-arrival), and because it included a short test which academic departments could require their students to complete in order to motivate them to engage with the module and to evaluate their understanding of the concepts within it.

Fortunately, research has identified a shift in views from seeing plagiarism as theft or cheating to potentially a result of students not understanding academic conventions (Senders, 2008), as well as a corresponding shift in measures dealing with it – from reactive punishment to proactive education (Vehviläinen et al., 2018). As an English for Academic Purposes (EAP) practitioner and Learning Developer, my approach to academic integrity has always been to view it as an academic practice that should be taught clearly and frequently because views around academic practices are socially constructed, and students may genuinely not understand how to paraphrase or cite in a manner considered appropriate within UK higher education (Park, 2003). International students, in particular, may have language difficulties that make paraphrasing a daunting task, or come from cultures with different beliefs about academic practice. For example, Chinese students may believe that it is disrespectful to rephrase the words of a well-known author (Introna et al., 2003). Furthermore, research suggests that instruction on plagiarism may not be fully internalised by students until it involves their own work (Barrett and Malcolm, 2006), and Davis and Carroll (2009) found that students who were taught to use Turnitin similarity checking software to analyse their own writing 'seemed to have a kind of "eureka" moment, when faced with the onscreen evidence of how they had used sources' (2009: 66). Thus, it is important for student learning that cultural expectations are explained and reinforced (Payne and Nantz, 1994), and that students have opportunities for feedback on their use of sources in their writing.

With all of this in mind, I created a module that introduced the basics of academic integrity. I employed a graduate intern to create videos of students talking about various aspects of university and academic life, and videos of students talking about their experiences of academic integrity were used throughout the module to introduce topics or common problems, and to make sure that students themselves could be seen to be taking the lead in maintaining academic integrity. In addition to the student videos, the module used audio/video

explanations, interactive activities, and hands-on tasks to make the material as meaningful as possible. The module included an introduction to the notion of academic integrity, the basics of using sources, effective paraphrasing, and the basics of citing and referencing. Since a new university-wide policy on the use of Turnitin had been adopted just before the 2022-23 academic year started, there was also a section explaining how to interpret a Turnitin report and use it to improve your paraphrasing skills. There was also a warning about how so-called 'essay mills' that provide contract cheating services often present themselves as legitimate student support/tutoring, how they recruit students to promote their product, and how they have been known to blackmail students who have used their services. Finally, the module finished with a short test on the content of the module. It should be noted that this module was a brief introduction to the notion of academic integrity and not intended to be a comprehensive programme. It was important not to overload new students with too much information before they had even arrived, and students were able to get further support (e.g. workshops and one-to-ones) in academic integrity from their departments or our central student support centre.

To date, 124 undergraduate students (out of a total of 1,775 new UG students) have engaged with the module, and 55 of those have completed the final 'check your understanding' test. 134 postgraduate students (out of a total of 5,980 new PG students) have engaged with the module, and 59 have completed the final test. Regarding the success of the module, to my knowledge, no academic programmes have required their students to take the module and complete the final test. This might be because this option was not sufficiently widely publicised, because staff at the university are reluctant to make it compulsory, or because they did not want the extra administrative burden of contacting me for reports on who had completed the course. Next year, I plan to promote this option earlier in the year. Towards the end of March 2023, when students will have received grades and feedback for at least some of their summative coursework assessments, I will send surveys to students who engaged with the course to find out how helpful they found it, and to gather any feedback they have to offer.

This presentation should be of interest to other writing centres or academic literacy centres who provide, or wish to provide, their own online pre-arrival materials. The presentation will explain the principles behind the module design, how it was designed, any issues that were encountered and plans for future iterations of the module. It will also present the findings from the surveys administered to students and the implications of these findings.

References

Barrett, R. and Malcolm, J. (2006). Embedding plagiarism education in the assessment process. *International Journal for Educational Integrity*, 2(2), 38–45. Available at: https://files.eric.ed.gov/fulltext/EJ1059488.pdf

Davis, M. and Carroll, J. (2006) Formative feedback within plagiarism education: Is there a role for text-matching software? *International Journal for Educational Integrity*, 5 (2), pp. 58-70.

Park, C. (2003). In other (people's) words: plagiarism by university students - literature and lessons. *Assessment & Evaluation in Higher Education*, 28:5, 471-488. https://doi.org/10.1080/02602930301677

Payne, S. L. and Nantz, K. S. (1994). Social accounts and metaphors about cheating. *College Teaching*, 42 (3), 90–96.https://www.jstor.org/stable/27558657

Introna, L., Hayes, N., Blair, L. and Wood, E. (2003). *Attitudes to plagiarism: developing a better understanding of the needs of students from diverse cultural backgrounds relating to issues of plagiarism*, Lancaster University, Lancaster. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.210.6903&rep=rep1&type=pdf

Senders, S. (2008). Academic plagiarism and the limits of theft. In Eisner, C. and Vicinus, M, (eds), *Originality, imitation, and plagiarism: teaching writing in the digital age*, Michigan: University of Michigan Press.

Thomas, L. (2011). Do pre-entry interventions such as 'Aimhigher' impact on student retention and success? A review of the literature. *Higher Education Quarterly,* 65(3), 230-250. https://doi-org.gate3.library.lse.ac.uk/10.1111/j.1468-2273.2010.00481.x

Vehviläinen, S., Löfström, E. & Nevgi, A. (2018). Dealing with plagiarism in the academic community: emotional engagement and moral distress. *Higher Education*, 75, 1–18. https://doi.org/10.1007/s10734-017-0112-6

Students as Partners promoting Academic Integrity: Transdisciplinary reflections founded on Epistemologies of the South

Beatriz Moya, Héctor Turr & Sarah E. Eaton

Werklund School of Education, University of Calgary, Canada

Introduction

Searching for alternative ways to involve students in academic integrity work is fundamental to maintaining trust and protecting educational institutions' integrity; this quest is especially relevant now with the emergence of technologies that facilitate cheating (Dawson, 2020; Kumar et al., 2022; Lancaster & Cotarlan, 2021). Three authors from diverse fields (i.e., academic integrity, Scholarship of Teaching and Learning, and social learning) engaged in transdisciplinary reflections through Restorative Practices (RP) proactive circles to address this interest.

This presentation provides insight into the conceptual underpinnings that inform understanding of Students as Partners (SaP) in academic integrity work from an Epistemologies of the South lens. This presentation also addresses the implementation of RP proactive restorative circles to pursue academic integrity interests collectively. Participants attending this presentation will gain insight into the interconnections between the concepts of SaP, the Systems Approach to Academic Integrity, and the Epistemologies of the South, discuss recommendations developed by the authors and built from RP proactive circles, and analyze how these circles might help reflect on academic integrity at large.

A Systems Approach Perspective

In the systems approach to academic integrity, expectations of ethical conduct are shared across all the members of a community (Bertram Gallant, 2016; Bretag, 2013), and the proper communication of such expectations and the provision of the means to achieve those expectations are educational institutions' social responsibility (Bertram Gallant, 2016; Eaton, 2021). Institutions using the systems approach actively create conditions to educate students for ethical decision-making (Bertram Gallant, 2008; Kenny & Eaton, 2022; TEQSA, 2017).

The system approach emphasizes supporting students' learning through policy, pedagogical methods, curriculum, assessment, and faculty development (e.g., Bertram Gallant, 2016; Kenny & Eaton, 2022). A less explored angle in this approach relates to students' participation in academic integrity work and development, and recent experiences suggest that students could also become advocates.

A Students as Partners (SaP) Perspective

SaP emerged in the Scholarship of Teaching and Learning (SoTL) community from an interest in developing a sense of shared responsibility among faculty and students (Felten, 2013). This sense could be reached through a redefinition of the traditional relationships between faculty and students (Mercer-Maptsone & Marie, 2019). Thus, experts have conceptualized how students and faculty could collaborate in a continuum (Bovil & Bulley, 2011; Student Voice Australia, n.d.). The student engagement continuum by Student Voice Australia (n.d.) is an example, and it describes five levels of faculty-student involvement.

The systems approach and the SaP share the mutual responsibility thread, and while many teaching and learning innovations around the

world show greater students' participation in educational initiatives, more insight is needed to identify how faculty and student relationships could be redefined in ways that ensure students' active participation in academic integrity.

Epistemologies of the South

The Epistemologies of the South (ESs) are ways of knowing that produce and validate multiple knowledge systems that emerge from communities that have suffered systematic oppression and injustice caused by Eurocentric systems such as capitalism, colonialism, and patriarchy (Escobar, 2020; Loncón, 2021). According to de Escobar (2020), ESs confront and question hegemonic systems that privilege one way of knowing, dismissing the plurality of views and other forms of knowledge and practices. In other words, ESs encompass an invitation to build pluralistic communities that accept different knowledges as equally valid.

In this work, we use ESs as a sensitizing concept to reflect on the role of SaP in academic integrity work, the power relations between students, authorities, scholars, and professionals, and the values at the core of the field.

A Transdisciplinary Conceptual Exploration through RP Proactive Circles

This paper describes the key outcomes of transdisciplinary dialogues through RP proactive circles that brought together researchers' epistemologies and theoretical constructs, involving two Ph.D. international students and an Associate Professor in a School of Education of a Canadian Research University. RP is a field focused on improving relationships among individuals and communities (IIRP, n.d.). Aligned with this notion, RP experts have developed the RP continuum, including various approaches that individuals and organizations could use to strengthen their communities. Among these approaches, we find proactive circles, and these circles embody the intention to plan for the future collectively (Costello et al., 2021a). Using RP proactive circles, organized through go-around conversations based on "connection, inclusion, fairness, equality, and wholeness" (Costello et al., 2021b, p. 5), the authors set out to share transdisciplinary perspectives about students as partners in academic integrity with an ESs lens.

Recommendation for Practice

This conceptual exploration, informed by the systems approach, SaP and the ESs and developed through RP proactive circles, has led us to propose the deconstruction of the power relationships within academic integrity work and development as a critical element for reflection.

Based on the ESs, the deconstruction of power relationships within academic integrity encompasses challenging the traditional attributions of whom is entitled to design academic integrity policies, how they are implemented and the types of resolution of academic integrity conflicts. In this regard, ESs open doors for the inclusion of students with diverse Indigenous, cultural, and social backgrounds to explore new possibilities for the development of academic integrity. This inclusion should not be merely consultive but requires a recalibration of the existing power asymmetries among students, authorities, scholars, and professionals. In other words, students' perspectives, opinions, and epistemologies need to have similar weight as other stakeholders in decision-making.

In our transdisciplinary exploration, ESs, the systems approach and SaP have converging aspects that permit us to envision academic integrity as a dialogical and inclusive field where students can be policy generators and advocates. By decentering academic integrity from scholars, authorities, and professionals in positions of power, there is an explicit commitment to relinquishing control over decision-making. The *transdisciplinary turn* in academic integrity, i.e., the opening to incorporate multiple knowledge systems, also enables a conversation about the values at the core of the field. Relinquishing control and accepting other knowledge systems as equally valid invites a reflection about humility as a value worth considering in dialogues within the field.

References

Bertram Gallant, T. (2008). *Academic integrity in the twenty-first century: A teaching and learning imperative.* San Francisco: Jossey-Bass.

Bertram Gallant, T. (2016). Systems approach to going forward. In T. Bretag (Ed.), *Handbook of academic integrity* (1st ed., pp. 975–977). Springer. https://doi.org/10.1007/978-981-287-098-8

Bovill, C., & Felten, P. (2016). Cultivating student–staff partnerships through research and practice. *International Journal for Academic Development, 21*(1), 1-3. https://doi.org/10.1080/1360144X.2016.1124965

Bretag, T. (2013). *Short-cut students: Fostering academic integrity in students*. Global Corruption Report: Education.

Costello, B., Wachtel, J., & Watchel, T. (2021a). *The restorative practices handbook* (2nd edition). International Institute for Restorative Practices.

Costello, B., Wachtel, J., & Watchel, T. (2021a). *Restorative circles in schools: A practical guide to educators* (2nd edition). International Institute for Restorative Practices.

Eaton, S. E. (2021). *Plagiarism in higher education: Tackling tough topics in academic integrity.* ABC-CLIO.
Escobar, A. (2020). *Pluriversal Politics: The Real and the Possible.* Duke University Press.
Felten, P. (2013). Principles of good practice in SoTL. *Teaching and Learning Inquiry, 1*(1), 121–125. https://doi.org/10.20343/teachlearninqu.1.1.121
Dawson, P. (2020). Cybersecurity: The next academic integrity frontier. In T. Bretag (Ed.), *A research agenda for academic integrity*. Edward Elgar Publishing.
Kenny, N., & Eaton, S. E. (2022). Academic integrity through a SoTL lens and 4M framework: An institutional self-study. In S.E Eaton & J. Christensen Hughes (Eds.), *Academic integrity in Canada: An enduring and essential challenge.* Springer. https://link.springer.com/book/10.1007/978-3-030-83255-1
Kubota, R. (2020). Confronting Epistemological Racism, Decolonizing Scholarly Knowledge: Race and Gender in Applied Linguistics. *Applied Linguistics*, *41*(5), 712-732. https://doi.org/10.1093/applin/amz033
Kumar, R., Mindzak, M., Eaton, S. E., & Morrison, R. (May 17, 2022). *AI & AI: Exploring the contemporary intersections of artificial intelligence and academic integrity* [Conference Session]. Canadian Society for the Study of Higher Education Annual Conference [Online]. http://hdl.handle.net/1880/114647
Lancaster, T., & Cotarlan, C. (2021). Contract cheating by STEM students through a file sharing website: A Covid-19 pandemic perspective. *International Journal for Educational Integrity, 17*(3), 1–16. https://doi.org/10.1007/s40979-021-00070-0
Loncón, E. (2021). Prologo. Refundación del estado en America Latina. In B. de Sousa Santos (Ed.), *La refundación del estado en America Latina* (pp. 9-14). Pehuén.
Mercer-Mapstone, L., & Marie, J. (2019). *Practical guide: Scaling up student-staff partnership in higher education.* The University of Edinburgh. https://discovery.ucl.ac.uk/id/eprint/10069252/
Student Voice Australia. (n.d.). *Student engagement continuum*. https://studentvoiceaustralia.com/wp-content/uploads/2019/11/Student-Engagement-Continuum_SVA.pdf
Tertiary Education Quality and Standards Agency (TEQSA). (2017). *Good practice note: Addressing contract cheating to safeguard academic integrity (Issue October)*. https://www.teqsa.gov.au/latest-news/publications/good-practice-note-addressing-contract-cheating-safeguard-academic

ROLE OF STUDENT PEER CHAMPIONS IN BUILDING A CULTURE OF ACADEMIC INTEGRITY

Serene Regi John, Sruthi Ramdas, Shaniya Michaelanto Stumen, Sarah Wilson & Zeenath Reza Khan

University of Wollongong in Dubai, UAE

The notion behind academic integrity is the expectation that teachers, students, researchers and all members of the academic community act with: honesty, trust, fairness, respect and responsibility (ICAI, 2018). Any behavior that violates these values either intentionally or unintentionally, is termed 'academic misconduct' or 'academic dishonesty' (TESQA, 2022). Studies have highlighted concerns over academic misconduct behaviours such as plagiarism, contract cheating and so on. (Billa, 2022; Clarke and Lancaster, 2006; Holden et al.,2021; Jenkins et al., 2022). However, on a positive note, studies such as Khan and Balasubramanian (2012) and Khan (2014) highlight factors such as peer influence and student's own sense of values influence student behaviour.

The role of a student is vital to promoting a culture of appropriate academic conduct. As students are most likely to be influenced by the environment around them, peer champions have been shown to reinforce good behavior and encourage others to follow suit. When students see peers championing academic integrity, they feel these are attainable standards, thus making it a most effective way in building a culture of appropriate academic conduct (Khan, 2021). Moreover a study conducted by Khan et al. (2020) demonstrated how organizing awareness campaigns can bring about a positive change in students.

In this paper, we present a systematic record of the efforts by the Student Board and Active Committee members of the Centre for Academic Integrity in the UAE (CAIU). CAIU is a voluntary forum founded in 2020 by a group of passionate faculty from universities and schools (Hill & Khan, 2021). The paper traces our efforts to spread the word on the importance of academic integrity among our peers rooted in Vygotsky's collaborative learning theory and student engagement theory through various awareness events and campaigns we had organized.

The theory of collaborative learning is a part of the zone of proximal development which is an element of the sociocultural theory proposed by Lev Vygotsky. It is an understanding that a learner/student is able to perform and complete their tasks more efficiently with the help of a proficient person or from other learners than trying to complete the task on their own (McLeod, 2022). As a result of collaborative learning, the learner shows development in their cognitive skills, communication skills, leadership skills, and more (CTI, 2023).

The theory of engagement given by Lev Vygotsky is based on the motivation and idea that when students find the lesson and concepts meaningful, they show a good amount of interest in the work allotted. This often results in better learning, ability to remember information, and can how to apply them in them effectively (Maloshonok, 2014).

Through the incorporation of the two theories discussed above we have tried to build a culture of academic integrity among our peers by conducting events like spring camp, debate championships, a short film on contract cheating, raising awareness through social media platforms. We have assessed its impact by conducting informal feedback sessions, formal dialogue and through surveys. Below we explain one such event in detail to demonstrate how we have designed, implemented and measured the success of such events in helping us to begin dialogue on academic integrity and continue the dialogue into practice.

A short film was created as a part of celebrating the International Day of Action against Contract Cheating. In this film, our colleagues were involved in the scripting, editing and enactment of instances of academically dishonest behaviors and how years of misconduct eventually results in unfavorable situations in the future. The short film was used as a means to get expert opinion on such instances including what students and faculty can do to avoid such situations. The docu-film was very well received by researchers, academics and students and is available with analysis as a recorded session teaching resource (CAIU, 2021).

We had two leading international experts from Canada and UK who joined the session as participants (panel speakers). The group also consisted of two students, one from university and one from school. This discussion was moderated by another senior member of our Centre. This discussion was recorded with full consent of all participants and shared with audience. Audience included 15 students and staff from different countries and institutions such as UAE, Canada, Greece and UK. The session presented the docu-film named "Way Back" in four parts. Each part elicited discussion by experts, students and audience. Table 1 provides a snapshot of the discussions and feedback.

The student involvement in conceptualizing, scripting, acting, recording and editing the docu-film added to the immersive experience of each member as below:

The feedback from the participants of the discussion as well as the experience shared by the students involved in the production of the docu-film provide very positive and affirmative effect of organizing such an event that does more to increase student understanding and awareness of academic integrity values and concerns than mere policies and handbooks.

As mentioned above, we have presented one event however it is imperative to mention that we have infact rolled out a number of diverse events and actions such as debate championship, spring camps, webinars, training sessions and even social media posts to promote an engage the larger student community.

Since the formation of the Student Board, we have seen the value of students as champions through the increased interest among other students to join the board. Seeing us as ambassadors and leaders, our student population in the Centre has grown from six to 14 students representing three universities and four schools in the UAE. Eight students who joined explicitly shared how they felt inspired when attending our events. Together we have run 13 events, competitions, and spring camps involving more than 500 students, teachers and parents.

We believe that building a strong student community is essential to bring about a change in the response to academic misconduct and promote the concept of integrity from a young age and raise professionally responsible individuals. With this presentation, we aim to present a successful case study model that other institutions can adopt.

References

Bellon, J. (2017). A Research-Based Justification for Debate Across the Curriculum. Argumentation and Advocacy. 36:3. 161-175. https://doi.org/10.1080/00028533.2000.11951646

Billa, B. (2022). Contract cheating: Why it affects original work. Ouriginal. https://www.ouriginal.com/contract-cheating-prevent-orignal-thinking/#:~:text=All%teaching.cornell.edu/teaching-resources/active-collaborative-learning/collaborative-learning

CAIU (2021). Practitioners Series - Episode 5 - Contracting Education. Centre for Academic Integrity in the UAE. Available online https://youtu.be/t0bJwrwbqt8

Clarke, R., & Lancaster, T. (2006, June). Eliminating the successor to plagiarism? Identifying the usage of contract cheating

sites. In proceedings of 2nd international plagiarism conference (pp. 19–21). Northumbria Learning Press.
CTI (2023). Collaborative Learning | Center for Teaching Innovation. Cornell.edu. https://teaching.cornell.edu/teaching-resources/active-collaborative-learning/collaborative-learning

Hill C & Khan ZR (2021) Calling Out The Elephant In The Room: Integrity And Ethical Practices In Times Of Crises – Experience From The Middle-East. European Conference On Academic Integrity And Plagiarism 2021. Book Of Abstracts. https://academicintegrity.eu/conference/proceedings/2021/book_of_abstracts2021.pdf

Holden, O. L., Norris, M. E., and Kuhlmeier, V. A. (2021). Academic Integrity in Online Assessment: A Research Review. Frontiers in Education, 6. https://doi.org/10.3389/feduc.2021.639814
ICAI. (2018). Fundamental Values of Academic Integrity. International Centre for Academic Integrity. USA.

Jenkins, B. D., Golding, J. M., Le Grand, A. M., Levi, M. M., and Pals, A. M. (2022). When opportunity knocks: College students' cheating amid the covid-19 pandemic. Teaching of Psychology, 00986283211059067.

Khan, Z. R. (2021). Including students in building a culture of integrity. IIEP Unesco - Etico | Platform on ethics and corruption in education. (2021, January 13). IIEP Unesco - Etico | Platform on Ethics and Corruption in Education. https://etico.iiep.unesco.org/en/including-students-building-culture-integrity

Khan, Z. R., & Balasubramanian, S. (2012). Students go click, flick and cheat… e-cheating, technologies and more. Journal of Academic and Business Ethics, 6, 1.

Khan, Z.R., Hemnani, P., Raheja, S. et al. (2020) Raising Awareness on Contract Cheating – Lessons Learned from Running Campus-Wide Campaigns. J Acad Ethics 18, 175–191 . https://doi.org/10.1007/s10805-020-09365-2
Maloshonok, N. (2014). Vygotsky's theory: Lessons for Student engagement research. In SERU International Research Conference. Moscow: Institute of Education HSE.

McLeod, S. (2022). Vygotsky's Sociocultural Theory of Cognitive Development. Simplypsychology.org. https://www.simplypsychology.org/vygotsky.html
TEQSA. (2022). What is academic integrity? | Tertiary Education Quality and Standards Agency. Teqsa.gov.au.https://www.teqsa.gov.au/students/understanding-academic-integrity/what-academic-integrity20in%20all%2C%20contract%20cheating,using%20their%20critical%20thinking%20skills.

Ethical Beliefs and Controversies of Computer Science Teaching Assistants

Tomáš Foltýnek & Martin Ukrop

Faculty of Informatics, Masaryk University, Czechia

Apart from lectures, a significant part of teaching sessions at the Faculty of Informatics (FI), Masaryk University (MU), Czechia, is led by student teaching assistants (TAs). This approach has its advantages, such as a positive effect on student learning performance (Erdei et al., 2017; Pivkina, 2016), better approachability for students compared to professors or senior lectures (Decker et al., 2006; Ren et al., 2019) or higher student satisfaction (Decker et al., 2006). However, multiple disadvantages are also common, such as a potentially lower content knowledge (Riese et al., 2021) or higher possibility of a conflict of interest (Riese and Kann, 2020). To mitigate these risks and to assure the high quality of teaching, the faculty offers Teaching Lab (Ukrop et al., 2020; Ukrop, 2022). In short, Teaching Lab is an elective, semester-long course (for 3 ECTS credits) with regular weekly sessions, led by senior teaching staff, aiming to facilitate teaching reflection of novice TAs, provide teaching inspiration and build a TA community. The discussed topics span from posing good question via basic principles of coachig and group dynamics to pedagogical content knowledge specific to computer science.

From time to time, the FI MU experienced a case of unethical behaviour committed by a TA or even a professor. This included leaking exam questions to the students, ridiculing students or otherwise reducing their dignity. These cases were either resolved internally by the course coordinator, or passed to the disciplinary committee of the faculty. The academic community of the faculty agrees that these cases are unacceptable and contradict both the spirit of the Teaching Lab as well as the overall institutional culture of academic integrity. However, until 2022, there was no teacher training on ethical issues at the faculty (neither in Teaching Lab nor elsewhere).

To address the above-mentioned problems and mitigate the risks, we decided to (1) draft the Ethical Guidelines for Teaching Assistants, and (2) include the session on Ethical dilemmas in the Teaching Lab course. To be able to draft the guidelines and design the session, we first had to answer the following (research) questions:

1. What ethical issues do the TAs most struggle with (i.e., are not able to judge them, or judge them differently)?
2. What ethical issues are relevant to be included in the Ethical guidelines?

To answer these questions, we conducted a questionnaire survey among the Teaching Lab students and the wider Teaching Lab community. In the following sections, we present the details of the survey and how we used it to design the session on ethical dilemmas, as well as our plans for the Ethical guidelines.

Survey on Ethical Dilemmas

To identify controversial issues worth discussion and inclusion to the ethical guideliness, we conducted a study based on a survey of psychology graduate TAs conducted at the University of Colorado in Denver (Branstetter and Handelsman, 2000). The questionnaire contained basic demographic information followed by a list of 50 scenarios. The respondents assessed each scenario on a five-point Likert scale: Definitely is an ethical problem, Probably is an ethical problem, Neutral, Probably is not an ethical problem, Definitely is not an ethical problem, I cannot judge. In the end, the respondents were given an opportunity to answer two open-ended questions: "*Which question(s) did you hesitate the most?*", and "*Can you think of any ethically problematic situation that you got into as a teacher?*".

Ethical issues are sensitive to verbal formulation, and thus can be prone to misunderstandings, especially in non-native language. To mitigate this risk, we provided the questionnaire in the respondents' mother language. Therefore, we asked a specialist from the Department of Languages to translate the original English questionnaire to Czech language. The questionnaire was piloted on five teachers of the course. Based on the pilot testing, we removed several items not relevant to our context and added some extra scenarios based on the previous experience from our faculty. We also changed the wording of some items and changed the wording of the scale description to make it more clear for respondents and suitable for our case.

After using the survey for the current class (14 students), we invited the wider Teaching Lab community (217 alumni of the course) to fill out the same questionnaire. We received 47 responses out of 231 (~20% response rate). Out of the 47 respondents, 19 (40%) were master students, 10 (21%) were bachelor students. Median of the respondents' teaching experience were 4 semesters. Almost all of them also took their time to provide answers to open-ended questions, which indicates the importance of ethical issues for the respondents.

Results

The top three most unethical scenarios (in respective order), according to the students, were:

1. *Insulting, ridiculing, and so forth a student in the student's presence*;
2. *Insulting, ridiculing, and so forth a student in the student's absence*;
3. *Leaking confidential information about the upcoming exam to students in their seminar group*.

The top three scenarios (in respective order) that the respondents did not consider as an ethical problem were:

1. *Engaging in a sexual relationship with a professor or other faculty member in your department*;
2. *Becoming sexually involved with a student only after he or she has completed your course*;
3. *Encouraging students to participate in your research projects.*

The goal of the Teaching Lab session on ethical dilemmas was to equip TAs with a general framework for approaching ethical dilemmas (the details will be included in the presentation): Analysiss of the context, identification of potential harm, evaluation of possible actions, and prevention of such situation. Within the group of 14 current TLab students, we facilitated the discussion to help the TAs see different aspects of the most controversial scenarios from the questionnaire:

1. The scenario with the largest variance: *Using cocaine or other illegal drugs in your private (nonteaching) life*;
2. The scenario with the highest number of respondents unable to judge: *Engaging in sexual fantasies about students*;
3. The scenario that students provided within an open question: *When assessing the assignments, take into account the information about how many points the student needs to pass.*

Conference presentation and Future Work

The questionnaire-based survey helped us to select ethical dilemmas relevant for the discussion at the Teaching lab session. It turned out to be a useful tool for identifying pressing issues for the students and we plan to use it before the session also in future. Open-ended questions in the survey as well as the ideas obtained from the students during the class will serve as a basis for the Ethical Guidelines for Teaching Assistants.

At the conference, we will present the results of this study, namely:

- The situations that the respondents see as the most unethical;
- The situations that the respondents don't consider as ethical problems;
- The situations with the largest variance;
- The situations in which the respondents hesitated the most;
- The inputs provided by the respondents in the open-ended question.

We will also examine the influence of demographic and background information like seniority, teaching roles, or relationship to the university (student vs. employee).

References

Branstetter, S. A., and Handelsman, M. M. (2000). Graduate Teaching Assistants: Ethical Training, Beliefs, and Practices. *Ethics & Behavior*, 10(1), 27–50. https://doi.org/10.1207/S15327019EB1001_3

Decker, A., Ventura, P., & Egert, C. A. (2006). Through the looking glass. *Technical Symposium on Computer Science Education*. https://doi.org/10.1145/1121341.1121358

Erdei, R., Springer, J. A., & Whittinghill, D. (2017). An impact comparison of two instructional scaffolding strategies employed in our programming laboratories: Employment of a supplemental teaching assistant versus employment of the pair programming methodology. *Frontiers in Education Conference*. https://doi.org/10.1109/fie.2017.8190650

Pivkina, I. (2016). Peer learning assistants in undergraduate computer science courses. *Frontiers in Education Conference*. https://doi.org/10.1109/fie.2016.7757658

Ren, Y., Krishnamurthi, S., & Fisler, K. (2019). What Help Do Students Seek in TA Office Hours? *International Computing Education Research Workshop*. https://doi.org/10.1145/3291279.3339418

Riese, E., & Kann, V. (2020). Teaching Assistants' Experiences of Tutoring and Assessing in Computer Science Education. *Frontiers in Education Conference*.

https://doi.org/10.1109/fie44824.2020.9274245

Riese, E., Lorås, M., Ukrop, M., & Effenberger, T. (2021). Challenges faced by teaching assistants in Computer Science Education across Europe. *Proceedings of the 26th ACM Conference on Innovation and Technology in Computer Science Education* V. 1.

https://doi.org/10.1145/3430665.3456304

Ukrop, M. (2022). Two Cases of Human-Centered Computer Science: Usable Developer Interaction with TLS Certificates and Effective Teaching Assistant Training. Dissertation thesis. Available from https://is.muni.cz/th/wwx5a/PhD_thesis.pdf

Ukrop, M., Švábenský, V., & Nagy, I. (2020). Teaching Lab: Training Novice Computer Science Teachers. In *Proceedings of the 2020 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '20)*. Association for Computing Machinery, New York, NY, USA, 561.

https://doi.org/10.1145/3341525.3393967

PLAGIARISM WITHOUT PLAGIARISTS

Bogdan Popoveniuc,

University Stefan cel Mare of Suceava,

Romania

Topic: *Analysis of the past ten years since plagiarism became a familiar topic in Romanian public opinion. The conference presentation will cover the commencement, evolution, public controversies, legislative and judicial decisions, media approach, educational reforms, student awareness, public perceptions, cultural causes and effects in academia*.

The problem of plagiarism in doctoral theses sprang up suddenly in the Romanian public space ten years ago, as a political issue, rather than an intrinsically problem for academia. This situation could explain why the reaction of academic institutions was rather restrained and defensive. Since 2012, when the online edition of *Nature* (Schiermeier, 2012), published the news that significant amount of plagiarism had been found in the doctoral thesis on the prime minister of Romania at that time (under the supervision of another former prime minister!) the things have evolved in a bewildering way. It is worth mentioning that 2012 represented the peak of the almost exponential pace raising of the PhD degrees awarded in this period, almost 6200, after this the number has decreased to the 2002 level, around 2200 per year. (Roșca, 2022).

I intend to present how the issue of blatant plagiarism was diverted from its intrinsic academic and ethical essence toward political, legal and public perception aspects. Because the problem came into attention of public opinion in relations to political and government leaders, they make use of all juridical, institutional and media instruments to cover it and get right of legal and ethical responsibility. The strategies were diverse. The political leaders and their parties made use of all their power and influence from media campaigns and manipulation to legislative measures, compromising actions toward whistleblowers and impelling court decision.

One evidence of this influence was the incredible silence of the media. There were few journals that covered live and extensively the topic. These were the journals with highly journalistic ethical standards, as G4Media, Pressone, Republica, which usually does not accept governmental funds directly or disguised in the form of information campaigns. The mainstream media, including most of the televisions, kept silence on this subjects or approach it either marginally as not significant news or from a partisan perspective.

Other strategies were more straightforward. For example, in the case of Victor Ponta prime minister, the composition and operating regulations of national agency in charge to ascertain plagiarism in doctoral thesis (CNADTDCU) was changed while they were analyzing the case. (Peticilă, 2020). Another tactic was to approach the problem by legislative initiatives aiming to absolve or even amnesty the plagiarists. There was a proposal to entitle the holder of a scientific title to renounce the title in question (The Government Emergency Order 4/2016). It was also an attempt to insert fraudulently a tricky amendment into the Law of education that would equate with a complete amnesty for plagiarists with doctorates obtained prior to 2011 (the Project Law P614/2021).

In addition, most of decisions of plagiarism were litigated in courts (Pușcaș, 2016). One way to clear the accusations was to supersede

the decisions of Ethical Committees, with resolutions of prosecutors who, oddly, arrogated themselves the expertise to decide in this cases ("Parchetul susţine că"). In other cases, the strategy was to challenge in courts the right of the universities or other national bodies to analyze the cases of plagiarism ("Lucian Bode, O nouă încercare", 2023). The most frequent were the attempts to suspend the plagiarism analysis and close the cases by legal actions ("Premierul Nicolae Ciucă", 2023). There are elements indicating political influence on judicial process as the use of illegal methods to fraud the random distribution of the files (Semeniuc & Tapalagă, 2022), that are now under investigation (Mihăiță, 2022), or tacit complicity of Ministerial structures (Semeniuc, 2023).

Unconceivable for a European country, there is compelling evidence and even court convictions for blackmail, death threats (Dojan, 2022) and kompromat actions (Dinu, 2022) against the plagiarisms whistleblowers made by individuals from or closed to governmental structures. Now, Romania risks infringement procedures from EU and the second payment (3.2 billion euros) from of PNRR (National Recovery and Resilience Plan) is blocked because of the deceptive form of the Whistleblowers Law, which, practically, dismisses anonymous reporting (Pantazi, 2023).

Meanwhile, two decisions of Constitutional Court have consecrated the scientific title of doctor as a purely "individual administrative act". After these decisions, neither the universities (CC Decision no. 624/2016), nor the Ministry of Education (CC Decision no. 364/2022) have the actual competence and power to revoke the title. In the past 6 years, there was no legislative initiative to address this issue. This intended incompleteness of the legal configuration makes impossible the resolution of any plagiarism complaint at this moment, because there is no authority entitled to decide on this. As a self-preservation reflex, most of the universities did not take openly their responsibility and they have chosen to act following the directions traced by public debate. As exception, the University of Bucharest, for example, involved in some of the most notorious scandals (e.g. Victor Ponta's case) openly admits its faults in all cases and takes the adequate measures (confirming it thought its ethical committee and submitting the proposal for revocation). Other universities tried to avoid the problem (Grădinaru, 2022) and took their full responsibility only after the public pressure and evidence became too obvious. (Bran, 2023).

However, there were also positive effects of plagiarism scandals, mostly top-down national measure. Ethics and academic integrity courses became mandatory at master and doctoral level (Order 3131/2018). The government has started funding measures for promoting ethics and academic integrity in universities through dedicated grants (Order 3629/2017). This resulted in a massive flood of events, publications, workshops, conferences, trainings throughout all Romanian academic space. The most notorious "doctoral diplomas factory", i.e. doctoral school of the Police Academy, has lost its accreditation.

The final considerations will focus on endemic and cultural causes of ambivalent attitude on academic misconduct. The plagiarism pandemics among the highest level of Romanian political class is an expression of structural flaws of social morality. In continuity with the ambivalence of public discourse from communist era, the openly and publicly promoted ethical commitments have no support at the interindividual level of everyday micro-morality. The judicialization of academic ethics is the most eloquent proof. The traditional kindship values prevail over deontological integrity. It is a shame and you

risk facing marginalization if you dare to take a stance against the misconduct of other colleague if this not affecting you directly. Whistleblowers are seen more as haters and ill-intentioned persons that cannot be trusted. It probably sounds dystopic, but the ten-year plagiarism saga reveals that Romanian society does not know how to deal and to sanction unethical conduct, because of its syncretic sense of right and wrong and its peculiar micro-morality.

References

Bran, M. (2023, January 20). En Roumanie, le gouvernement fragilisé par une série d'affaires de plagiat [In Romania, the government weakened by a series of plagiarism cases]. *Le Monde.fr*. https://www.lemonde.fr/international/article/2023/01/20/en-roumanie-le-gouvernement-fragilise-par-une-serie-d-affaires-de-plagiat_6158648_3210.html.

Dinu, C. (2022, August 4). Culisele operațiunii kompromat. Emilia Șercan: Am avut un șoc. Te duci la poliție să reclami și poliția te vinde mafioților? [Behind the scenes of the kompromat operation. Emilia Șercan: I had a shock. You go to the police to complain and the police sell you to the mobsters?]. *Hotnews.ro*. https://www.hotnews.ro/stiri-esential-25486916-culisele-operatiunii-kompromat-emilia-sercan-avut-soc-duci-politie-reclami-politia-vinde-mafiotilor.htm.

Dojan, S. (2022, July 21). Condamnare cu suspendare după amenințarea cu moartea a unui jurnalist. Emilia Șercan publică mesajul de amenințare. [Conviction with suspendation after death threat to a journalist. Emilia Șercan publishes the threatening message]. *Europa Liberă România*. https://romania.europalibera.org/a/emilia-sercan-plagiat-condamnare-iccj/31953939.html

Grădinaru, A. (2022, November 1). UBB admite că nu a verificat toată teza de doctorat a lui Bode ci „doar ce s-a reclamat". „Nu există capacitate pentru așa ceva", transmite Comisia de Etică [UBB admits that it did not check all of Bode's doctoral thesis but "only what was claimed". "There is no capacity for such a thing," reports the Ethics Commission]. *Europa FM*. https://www.europafm.ro/ubb-admite-ca-nu-a-verificat-toata-teza-de-doctorat-a-lui-bode-ci-doar-ce-s-a-reclamat-nu-exista-capacitate-pentru-asa-ceva-spune-reprezantantul-comsiei-de-etica/.

Lucian Bode, O nouă încercare de a scăpa în instanță de acuzațiile de plagiat: Un al doilea proces împotriva UBB. (2023 February 7). *Hotnews.ro*. https://www.hotnews.ro/stiri-educatie-26068285-lucian-bode-noua-incercare-scapa-instanta-acuzatiile-plagiat-doilea-proces-impotriva-ubb.htm.

Mihăiță, F. (2022). Parchetul General investighează modul în care a fost repartizat dosarul privind plagiatul lui Ciucă. Judecătorul s-a pensionat după decizie [The General Prosecutor's Office is investigating how the file regarding Ciucă's plagiarism was distributed. The judge retired after the decision]. *Europa FM*. https://www.europafm.ro/parchetul-general-investigheaza-modul-in-care-a-fost-repartizat-dosarul-privind-plagiatul-lui-ciuca-judecatorul-s-a-pensionat-dupa-decizie/

Pantazi, C. (2023, February 25). EXCLUSIV Analiza celei de-a doua cereri de plată din PNRR, de 3.2 miliarde euro, prelungită cu încă

o lună / Comisia Europeană are rezerve legate de protecția avertizorilor de integritate și decarbonizare [Analysis of the second payment request from the PNRR, of 3.2 billion euros, extended by another month / The European Commission has reservations related to the protection of integrity whistleblowers and decarbonization]. *G4Media.ro*. https://www.g4media.ro/exclusiv-analiza-celei-de-a-doua-cereri-de-plata-din-pnrr-de-3-2-miliarde-euro-prelungita-cu-inca-o-luna-comisia-europeana-are-rezerve-legate-de-protectia-avertizorilor-de-integritate-si-decarboni.html.

Parchetul susține că Victor Ponta nu a plagiat [The prosecutor's office claims that Victor Ponta did not plagiarize]. (2013, May 22). *Bursa*. https://www.bursa.ro/parchetul-sustine-ca-victor-ponta-nu-a-plagiat-29546026.

Peticilă, M. (2020, July 14). Cronologia celui mai mare caz de furt intelectual din România—Plagiatul lui Victor Ponta [Chronology of the biggest case of intellectual theft in Romania - Victor Ponta's plagiarism.]. *Edupedu.ro*. https://www.edupedu.ro/cronologia-celui-mai-mare-caz-de-furt-intelectual-din-romania-plagiatul-lui-victor-ponta/.

Premierul Nicolae Ciucă a câștigat procesul prin care a cerut suspendarea analizei tezei de doctorat [Prime Minister Nicolae Ciucă won the process by which he requested the suspension of the analysis of the doctoral thesis.]. (2023, February 1). *Juridice*. https://www.juridice.ro/789887/premierul-nicolae-ciuca-a-castigat-procesul-prin-care-a-cerut-suspendarea-analizei-tezei-de-doctorat.html.

Pușcaș, F. (2016). Victor Ponta a contestat verdictul cu privire la teza sa de doctorat [Victor Ponta contested the verdict regarding his doctoral thesis]. *Stiri pe Surse*. https://www.stiripesurse.ro/victor-ponta-a-contestat-verdictul-cu-privire-la-teza-sa-de-doctorat_1143397.html.

Roșca, I. (2022, January 23). Fenomenul plagiatelor. Peste 80.000 de titluri de doctor acordate în România din 1990 și până azi. Anul cu cele mai multe doctorate [The phenomenon of plagiarism. Over 80,000 doctorate degrees awarded in Romania from 1990 until today. The year with the most doctorates]. *Hotnews.ro*. https://www.hotnews.ro/stiri-educatie-25320765-fenomenul-plagiatelor-peste-80-000-titluri-doctor-acordate-romania-din-1990-pana-azi-anul-cele-mai-multe-doctorate.htm

Schiermeier, Q. (2012). Romanian prime minister accused of plagiarism. *Nature*, *486*(7403), Art. 7403. https://doi.org/10.1038/486305a.

Semeniuc, F. (2023). Greșeală elementară sau mână de ajutor? Pentru că a depus recursul în afara termenului legal, Ministerul Educației a

pierdut definitiv procesul în care premierul Ciucă obținuse suspendarea analizei tezei sale de doctorat, suspectă de plagiat [Elementary mistake or helping hand? Because it filed the appeal outside the legal deadline, the Ministry of Education definitively lost the process in which Prime Minister Ciucă obtained the suspension of the analysis of his doctoral thesis, suspected of plagiarism]. *G4Media.ro*. https://www.g4media.ro/greseala-elementara-sau-mana-de-ajutor-pentru-ca-a-depus-recursul-in-afara-termenului-legal-ministerul-educatiei-a-pierdut-definitiv-procesul-in-care-premierul-ciuca-obtinuse-suspendarea-analizei-te.html.

Semeniuc, F., & Tapalagă, D. (2022). EXCLUSIV Cum a fost direcționat dosarul premierului Nicolae Ciucă prin metoda „coperta" către judecătorul Marius Iosif, care s-a pensionat imediat după ce a anulat sesizările de plagiat [EXCLUSIVE How Prime Minister Nicolae Ciucă's file was directed by the "cover" method to judge Marius Iosif, who retired immediately after canceling the plagiarism notifications]. *G4Media.ro*. https://www.g4media.ro/exclusiv-cum-a-fost-directionat-dosarul-premierului-nicolae-ciuca-prin-metoda-coperta-catre-judecatorul-marius-iosif-care-s-a-pensionat-imediat-dupa-ce-a-anulat-sesizarile-de-plagia.html.

Conference Abstracts – Day 3

Academic integrity practices and perceptions of undergraduate students at the University of Porto

Ana Cristina Veríssimo[1], Pedro Oliveira[2,3], Paula Mena Matos[4], Milton Severo[2,3] & Laura Ribeiro[1,5]

[1]Department of Public Health and Forensic Sciences and Medical Education, Medical Education Unit, Faculty of Medicine, University of Porto, Portugal

[2]School of Medicine and Biomedical Sciences (ICBAS), University of Porto, Portugal

[3]Institute of Public Health, University of Porto, Portugal

[4]Faculty of Psychology and Education Sciences, University of Porto, Portugal

[5]I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal

Academic misconduct has long been pointed as a widespread practice among higher education students (McCabe et al., 2001; Monteiro et al., 2018; Whitley, 1998), lately aggravated by the rapid technological advances that make it easier for students to copy-and-paste or contract services online to assist or do their academic work for them (Draper et al., 2021). Such behaviour threatens the fairness and quality of the educational systems, students' learning, and their adequate preparation to meet professional and societal responsibilities (Glendinning, 2020; Keener et al., 2019; LaDuke, 2013). Attending to the undesirable effects of academic misconduct, it is key to continuously gather information regarding the compliance of students with academic integrity principles of honesty, trust, fairness, respect and responsibility during their learning and study activities (International Center for Academic Integrity, 2014; Tauginienė et al., 2018), as well as their perceptions about and engagement in practices that transgress these standards, such as cheating or plagiarism (Franco et al., 2016; Whitley, 1998). The way students perceive and judge different forms of academic misconduct, whether more positively or negatively, is a useful indicator of their personal attitudes towards these behaviours. At this level, students who show more permissive attitudes towards academic misbehaviour are more likely to be willing to engage in such practices (Franco et al., 2016). Higher education institutions can use this information on the perceptions and academic practices of their students to better design and implement academic community-wide approaches ("top-down and bottom-up") to promote the understanding, commitment and critical reflection about academic integrity values and practices, mitigating the risk of misconduct among students (Bretag, 2020; McCabe et al., 2001).

This study then aims to assess practices and perceptions of undergraduate students towards academic integrity regarding study skills, academic writing, and plagiarism. We also aim to explore how student practices and perceptions are associated with their demographics, field of study, and attendance of academic integrity training.

We will invite a sample of approximately 500 first year students from three faculties of the University of Porto to complete an adapted version of the Academic Integrity Self-evaluation Tool for Students (AISETS), which was developed by members of the European Network for Academic Integrity (ENAI) (Gaižauskaitė et al., 2020). The questionnaire is anonymous and comprises nine multiple-choice and Likert-scale questions covering topics linked to academic writing, plagiarism, and study skills of the students. General information about their sex, age, field of study, and prior academic integrity training will also be gathered. Data collection will be carried cross-sectionally, preferably in-person. The quantitative data collected will be analysed using descriptive statistics, independent t-tests, ANOVA, and Pearson correlations. This study will follow the ethical principles already approved by the Ethics Committee of the University of Porto.

This research is part of a PhD thesis integrated in an institution-wide project taking place at the University of Porto, in collaboration with the ENAI. The results should provide an institutional overview of undergraduate students' perceptions towards academic integrity and misconduct and their level of compliance with ethics and integrity in their academic activities.

Overall, this study will offer valuable insights regarding the level of engagement and preparedness of the University of Porto students to meet academic integrity standards in their practices. These results can be used by the university to strengthen their actions and policies on academic integrity, while also bringing together its academic community around the matter. These will contribute to mitigate the risk of misconduct and to better support students in upholding integrity values, enhancing the quality of their learning and professional development, ultimately benefiting society.

This session will prompt participants to discuss and reflect on: i) the level of preparedness of freshman students to meet the standards of good academic practice and avoid misconduct based on their practices and perceptions towards academic integrity; ii) strategies for enhancing academic integrity training at the undergraduate level; and iii) recommendations for academic leaders and professors at the University of Porto, but also transferable to other contexts and institutions, to prevent academic misbehaviour and foster responsible academic practices among students. We believe that students will also benefit much from attending this session and participating in the discussion.

References

Bretag, T. (2020). Introduction to A Research Agenda for Academic Integrity: emerging issues in academic integrity research. *A Research Agenda for Academic Integrity*, 1–12. https://doi.org/10.4337/9781789903775.00007

Draper, M., Lancaster, T., Dann, S., Crockett, R., & Glendinning, I. (2021). Essay mills and other contract cheating services: to buy or not to buy and the consequences of students changing their minds. *International Journal for Educational Integrity*, *17*(1). https://doi.org/10.1007/S40979-021-00081-X

Franco, R. S., Franco, C. A. G., Kusma, S. Z., Severo, M., & Ferreira, M. A. (2016). To participate or not participate in unprofessional behavior – Is that the question? *Medical Teacher*, *39*(2), 212–219. https://doi.org/10.1080/0142159X.2017.1266316

Gaižauskaitė, I., Glendinning, I., Foltýnek, T., Razi, S., Marino, F., Cosentino, M., Ribeiro, L., & Sivasubramaniam, S. (2020). Academic Integrity Self- Evaluation Tools. Available online: http://academicintegrity.eu/survey/

Glendinning, I. (2020). The role of quality assurance and regulatory organizations to promote academic integrity. In T. Bretag (Ed.), *A Research Agenda for Academic Integrity*, 13–27. Edward Elgar Publishing.

International Center for Academic Integrity. (2014). *The Fundamental Values of Academic Integrity* (T. Fishman (ed.); 2nd ed.). Clemson University. https://academicintegrity.org/wp-content/uploads/2017/12/Fundamental-Values-2014.pdf

Keener, T. A., Galvez Peralta, M., Smith, M., Swager, L., Ingles, J., Wen, S., & Barbier, M. (2019). Student and faculty perceptions: Appropriate consequences of lapses in academic integrity in health sciences education. *BMC Medical Education*, *19*(1), 209. https://doi.org/10.1186/s12909-019-1645-4

LaDuke, R. D. (2013). Academic Dishonesty Today, Unethical Practices Tomorrow? *Journal of Professional Nursing*, *29*, 402–406. https://doi.org/10.1016/j.profnurs.2012.10.009

McCabe, D. L., Treviño, L. K., & Butterfield, K. D. (2001). Cheating in academic institutions: A decade of research. *Ethics & Behavior*, *11*(13), 219–232. https://doi.org/10.1207/S15327019EB1103

Monteiro, J., Silva-Pereira, F., & Severo, M. (2018). Investigating the existence of social

networks in cheating behaviors in medical students. *BMC Medical Education*, *18*(1), 193. https://doi.org/10.1186/s12909-018-1299-7

Tauginienė, L., Gaižauskaitė, I., Glendinning, I., Kravjar, J., Ojsteršek, M., Ribeiro, L., Odiņeca, T., Marino, F., Cosentino, M., & Sivasubramaniam, S. (2018). Glossary for Academic Integrity. In ENAI Report 3G. https://doi.org/10.13140/RG.2.2.34997.37608

Whitley, B. E. (1998). Factors associated with cheating among college students: A review. *Research in Higher Education*, *39*(3), 235–274. https://doi.org/10.1023/A:1018724900565

Pathways to Academic Integrity: Supporting Students through a Community of Practice Approach

Elva Casey

Registrar, Hibernia College, Ireland

This paper charts the establishment and holistic development of a college-wide Community of Practice (CoP) on Academic Integrity at Hibernia College (HC), a Higher Education Institution (HEI) provider of blended learning in Ireland. The establishment of the CoP was initially motivated by a perceived need to address potential increased risks of academic misconduct in light of developments in generative artificial intelligence. However, a literature review, collaborative faculty discussions and facilitation of focus groups with students across HC programmes, re-directed the focus of the CoP towards addressing the potentially punitive nature of academic integrity policies, procedures and their implementation and co-creating student supports. This re-aligned the work of the CoP towards a collaborative academic integrity policy review informed by Bretag et al.'s (2011) five core elements of exemplary policy and towards co-creation of resources to support students in their own practices. This represents more holistic approaches to policy design and strategy which authentically engage students with academic integrity practices. The conceptual framework presented by Wenger et al. (2011) for promoting and assessing value creation in communities and networks and the cycle of value creation is utilised by the CoP. In sharing this process, participants will learn how a co-creation, CoP approach to fostering and facilitating an Academic Integrity culture could be applicable to their institutions and support the deconstructing of ambiguous policy into accessible resources.

Literature Review

The literature speaks to a situation whereby university policies are broadly aligned in their educative and punitive approaches to academic integrity, however where scope exists for development in terms of policy access and supports (Möller, 2022). Möller (2022) calls for a continued internal review process to improve Academic Integrity cultures within institutions. Kaposi and Dell (2012) highlight the transitional nature of the HEI sector as focus starts to move away from punitively penalising academic misconduct and towards improving progressive supports. They argue for a rejection of assumptions of moralistic approaches towards suspected intentions of misconduct which impede the transparency of interpretation and result in overly simplified renditions of student identity as honest or dishonest. Bretag et al. (2013), in conducting a large scale online student survey (n=15,304) on Academic Integrity across six Australian universities, find that while variances exist across student cohorts in levels of confidence on how to avoid academic misconduct (with international students expressing lower awareness and postgraduate students higher awareness), students across all cohorts indicated a need to move beyond the basic provision of information and towards more holistic approaches which authentically engage students with Academic Integrity practices. Bretag et al. (2011) go on to identify five core elements of an exemplary policy: access, approach, responsibility, detail, and support. Reedy et al. (2021) find that when policy analysis and development are undertaken as top-down processes, they result in poor policy uptake. Their case study of a community of practice approach at a regional Australian university to deconstruct and translate potentially ambiguous academic integrity policy into accessible and intelligible resources for staff and students has informed the CoP for HC. While perceptions of online cheating (Khan et al., 2021) and contract cheating (Usick & Stoesz, 2021) can inform a didactive approach to Academic Integrity, with the struggling student side-lined to passive recipient of outcomes, Lave and Wenger's

(1991) 'Community of Practice', focuses on situated learning in a safe and participatory space. Thus, a CoP approach can facilitate the sharing and testing of ideas with a focus on Academic Integrity to provide inspiration and energy to make positive impacts (Eaton et al., 2021). Policy review is an integral aspect of the quality assurance procedures of any institution with policies otherwise in danger of not being enacted as intended by original architects (Lipsky, 2010; Stoesz & Eaton, 2022) or failing to keep pace with changes in student profile, the institution itself and national or international developments. McNeill (2022) illustrates how the introduction of a 'pedagogy of integrity' has led to significant improvements in student and staff uptake of academic integrity both at theory and practice level. This educative approach highlights the importance of multiple stakeholders engaging with and in the implementation and planning of academic integrity guided by understanding of its value.

Methodologies and Academic Integrity Journey:

The steps in this CoP on academic integrity are broadly outlined at follows (guided by the Value Creation Framework of Wenger et al. (2011)):

Cycle One: Immediate Value: Activities and Interaction

January-February:

Cycle One began with the assembling of academic and support faculty facing similar challenges in academic integrity who could subsequently benefit from shared practice and understanding. An initial review of key personnel across the College was conducted by the Registrar and an invitation to join the CoP issued. The Academic Integrity CoP was established as a forum to discuss difficult cases and challenges faced to date and for broader networking purposes.

Cycle Two: Potential Value: Knowledge Capital

February-March:

The potential spectrum of interest in the area of Academic Integrity is vast and the establishment of knowledge capital for values to be realised at a later date subsequently emerged as a priority. Consequently, sub-working groups were established on the following areas initially identified through an early review of National Academic Integrity Network resources (QQI & NAIN 2021a, 2021b):

- Upholding Academic Integrity
- Preventing Academic Misconduct
- Detecting Academic Misconduct
- Dealing with Academic Misconduct

Each sub-group conducted a literature review and presented their findings for discussion within the CoP, with the construction of iteratively emerging themes (Braun and Clarke, 2022). Key emerging themes included: addressing the prevalence of punitive outcomes, supporting students authentically, collaborative policy review and improving accessibility. Preliminary findings indicate a specific gap in providing structured and aligned supports to students identified as engaging with academic misconduct to prevent re-occurrences. In tandem with this finding, was a developing awareness of a need for more specific guidelines on what constitutes misconduct and how it can be ranked or classified at different levels.

Cycle Three: Applied Value: Changes in Practice

April-May:

The collective voice of the CoP informed an institutional decision to conduct a comprehensive review of Academic Integrity policies and procedures, commencing with data generation: 4 student focus groups, to ensure the inclusion of student voice. Thematic Analysis (Braun & Clarke, 2021) was employed to identify themes and patterns from the focus groups. At the point of submission this process is ongoing however early themes include closing the gap between knowing what to do and engaging in good practice, language and terminology confusion, accepting negative assessment feedback and holistic approaches to Academic Integrity. Post focus groups, semi-structured interviews will be conducted with

HC students and staff (guided by emerging themes) to focus more specifically on developing and implementing potential supports for students found to have engaged in academic misconduct and ways to move away from a punitive focus. Concurrently, the Registrar working in collaboration with the CoP will conduct a risk point analysis of HC programmes and identify specific forms of misconduct which will then be mapped against the potential supports to students. Two sub-working group will lead the writing of policies and resource creation.

Cycle Four: Realised Value: indicators of performance improvement

June-July:

The reviewed policies and support resources will be presented to Academic Board for approval. Implementation and engagement across HC will then be reviewed guided by Bretag et al. (2011) five core elements of an exemplary policy as review criteria: access, approach, responsibility, detail, and support. All students will be surveyed, and focus groups held with students and staff based on expressions of interest.

Cycle Five: Reframing Value: Redefining Success

August-October:

The last cycle of value creation occurs when social learning causes a reconsideration of the learning imperatives and the criteria by which success is defined (Wenger et al., 2011). This will include the reframing of strategies, goals and values regarding academic integrity in the publication of a new publicly accessible Hibernia Academic Integrity Strategy. This may involve the transforming of practices in line with new definitions of success as arrived at through this process. The co-creation of a specific strategy has significant implications for improving current practice by enabling improved student and staff awareness of and engagement with policy, identifying and implementing more focused supports for struggling students and facilitating a responsive and living culture of integrity. This model of CoP, including student perspectives, provides a replicable model of co-creation and design of policy, strategy and practice in Academic Integrity within an academic institution. The holistic approach to authentically engaging students in intervening in current established practices in Academic Integrity is applicable in most institutional settings and the resulting strategy and policies will be made publicly accessibly.

References

Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, 9(1). https://doi.org/10.1037/qup0000196

Bretag, T., Mahmud, S., Wallace, M., Walker, R., McGowan, U., East, J., Green, M., Partridge, L., & James, C. (2013). "Teach us how to do it properly!" An Australian academic integrity student survey. *Studies in Higher Education*, 39(7), 1150–1169. https://doi.org/10.1080/03075079.2013.777406

Bretag, T., Mahmud, S., Wallace, M., Walker, R., McGowan, U., East, J., Green, M., Partridge, L., & James, C. (2011). Academic Integrity Standards: A preliminary analysis of the academic integrity policies at Australian universities. Refereed paper presented at the Australian Quality Forum 29 June-1 July, Melbourne, Australia.

Eaton, S.E., Figueroa, B.M., Butterworth, C., Feledichuk, D., Leslie, K., Lothian, J., Murray, J., Sodeen, C. & Wheatley, B. (2021). Reflections on the First Year of Integrity Hour: An Online Community of Practice for Academic Integrity. *Canadian Perspectives on Academic Integrity* 4(1). https://doi.org/10.11575/cpai.v4i1.72676

Kaposi, D., & Dell, P. (2012). Discourses of plagiarism: moralist, proceduralist, developmental and inter-textual approaches. *British Journal of Sociology of Education*, 33(6), 813–830. https://doi.org/10.1080/01425692.2012.686897

Khan, S., Kambris, M. E. K., & Alfalahi, H. (2021). Perspectives of University Students and Faculty on remote education experiences during COVID-19- a qualitative study. *Education and Information Technologies*. https://doi.org/10.1007/s10639-021-10784-w

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. *Cambridge University Press*. https://doi.org/10.1017/CBO9780511815355

Lipsky, M. (2010). Street-level bureaucracy, 30th Ann. Ed.: dilemmas of the individual in public service. *Russell Sage Foundation*, New York.

McNeill, L. (2022). Changing "hearts" and minds: Pedagogical and institutional practices to foster academic integrity. S. E. Eaton & J. Christensen Hughes (Eds.), *Academic integrity in Canada: An enduring and essential challenge*, Springer.

Möller, A. (2022). An analysis of university academic integrity policies in New Zealand, *Journal of Further and Higher Education*, 1-13. DOI: 10.1080/0309877X.2022.2130195

National Academic Integrity Network (NAIN) (2021a) Academic integrity: national principles and lexicon of common terms. [Online] Available at: https://www.qqi.ie/sites/default/files/2021-11/academic-integrity-national-principles-and-lexicon-of-common-terms.pdf (Accessed: 03 April 2023).

National Academic Integrity Network (NAIN) (2021a) Academic integrity: guidelines [Online] Available at: https://www.qqi.ie/sites/default/files/2021-11/academic-integrity-guidelines.pdf (Accessed: 03 April 2023).

Reedy, A.K., Wurm, A.S., Janssen, A. & Lockley, A. (2021). A community of practice approach to enhancing academic integrity policy translation: a case study. *International Journal for Educational Integrity*, Vol. 17 (12)

Stoesz, B.M. & Eaton, A.E. (2022). Academic Integrity polices of publicly funded universities in Western Canada. *Educational Policy* 2022, Vol. 36 (6), DOI: 10.1177/0895904820983032

Usick B & Stoesz BM. (2021). Contract Cheating in Canada: Editorial. *Canadian Perspectives on Academic Integrity*, 4(2).

Wenger, E., Trayner, B. & de Laat, M. (2011). Promoting and assessing value creation in communities and networks: a conceptual framework. Rapport 18, Ruud de Moor Centrum, *Open University of the Netherlands* https://wenger-trayner.com/resources/publications/evaluation-framework/

CAN TEXT ANALYSIS FIND TADPOLES? LINGUISTIC INVESTIGATION OF IMAGE FRAUD IN SCIENTIFIC RESEARCH

Olumide Popoola
Queen Mary University of London

Image fraud in scientific research is the fraudulent or inappropriate use or manipulation of images with the purpose of fabricating research outcomes. Typical cases of image fraud involve duplicating, rotating, cropping or stretching of data visualisations such as Western Blots (Bik, 2020). Estimates of the extent of image fraud range from 1 – 10% (Bik, 2020; UKRIO, 2021).

Existing techniques to detect fraudulent image manipulation use either expensive AI solutions to automate the process (Quach, 2022) or time intensive manual processes by highly trained "image forensic detectives". This paper investigates whether forensic text analysis can assist this process.

Pérez-Neri, Pineda and Sandoval, 2022) found extensive evidence of 'paper mills' engaging in systematic data fabrication and image fraud in scientific research, with over 300 papers identified in the Retraction Watch database. Identifying features include ghostwriting amongst other manipulations of the publishing process such as data fabrication, selling of authorship and correspondence management. Popoola (2022) used forensic text analysis to identify essays written by commercial ghost-writers working for 'essay mills'; image manipulation occurring in 'paper mill' produced i.e. ghost written research may be similarly identifiable.

In conjunction with renowned science integrity investigator Elisabeth Bik, this author created the 'Forensic Tadpole Corpus', a collection of 84 papers, 42 taken from Bik's collection of over 600 papers retracted for fraudulent Western Blot manipulation, matched with 42 unretracted papers from the same single journal which do not contain Western blots. The forensic linguistic techniques utilised in Popoola (2022) were applied only to the Abstract section of these 84 papers, in order to minimise analytical noise from variations in article text structure.

A linguistic fraud detection model was built that identified fraudulent Western Blot papers with 81% accuracy using linguistic features related to sentence length, readability, and use of transitional devices. Abstracts written containing fraudulent images were easier to read, using shorter sentences and signposting adverbs to create a more overtly persuasive academic writing style.

The conference presentation will include an interactive component that will invite the audience to 'guess the fake abstract' followed by a summary of the research and a discussion of the potential of forensic linguistics to complement image forensics in pursuit of research integrity.

References

Bik, E. (2020) Western blots. https://scienceintegritydigest.com/2020/02/21/western-blots/.

Pérez-Neri, I., Pineda, C. & Sandoval, H. Threats to scholarly research integrity arising from paper mills: a rapid scoping review. Clin Rheumatol 41, 2241–2248 (2022). https://doi.org/10.1007/s10067-022-06198-9

Popoola, O. (2022). Decision Support for Marker Detection of Contract Cheating: An Investigative Corpus Linguistic Approach. In: Bjelobaba, S., Foltýnek, T., Glendinning, I., Krásničan, V., Dlabolová, D.H. (eds) Academic Integrity: Broadening Practices, Technologies, and the Role of Students. Ethics and Integrity in Educational Contexts, vol 4. Springer, Cham. https://doi.org/10.1007/978-3-031-16976-2_10

UKRIO, 2021, Expert Interview with Jana Christopher https://ukrio.org/research-integrity-resources/expert-interviews/jana-christopher-image-integrity-analyst/

Quach, 2022, Academic publishers turn to AI software to catch bad scientists doctoring data https://www.theregister.com/2022/09/12/academic_publishers_are_using_ai

UK Universities policy responses to Artificial Intelligence (AI) related academic misconduct in undergraduate studies

Stephanas Lim & Qianyi Zhang

Imperial College London, UK

Universities in the UK and around the world are adapting to the mass emergence of generative artificial intelligence (AI) tools such as ChatGPT and Google Bard. These tools offer users the opportunity to create new text and forms of words using chatbot interfaces. AI technology itself is not new and researchers have discussed how this can be strongly influential on the educational landscape of universities and other higher education institutions (Dwivedi *et al.*, 2021; Swiecki *et al.*, 2022).

The ease of use, breadth of application and accessibility of AI tools creates the potential for students to both enhance their learning and to breach university academic integrity policies. Similarly, AI tools augment the way educators develop lesson plans and assessments in response to this effect on student's learning. It is therefore this bipolar nature of the use of AI tools affecting all stakeholders within universities that underscores the importance of holistic regulation. Whilst AI tools should be encouraged to supplement learning especially in academically demanding university degree courses, universities play crucial roles in ensuring that AI tools do not create added opportunity, incentive and rationale to commit academic misconduct (Holden *et al.*, 2021).

The risks posed by generative AI are not purely hypothetical. Based on Google Trend data sampling the interest towards AI collected between March 2022-23, it was noted that interest in AI as a search keyword and topic spiked in mid-December 2022 and late February 2023, periods coinciding with widespread interest in ChatGPT (Google, 2023). Therefore, it is of interest to understand whether UK universities, which are bound by regulatory guidelines, have been able to officially update their policies or provide new guidance to students about how AI can be best used to support their studies.

This presentation will report on a study conducted by a team of undergraduate student researchers at Imperial College London which was awarded the Undergraduate Academic Integrity Group Research prize. The study assessed how ready a sample of 50 UK universities are to tackle AI related academic misconduct based on information presented in the university's published policy and student guidance documents. The sampled universities selected for the study were obtained from the top 50 universities published in the Complete University Guide 2023 University League table (Complete University Guide, 2023). Data was collected between 27 February and 5 March 2023.

A novel rating system named the AI Misconduct Readiness (AIMR) rating was developed and this will be presented. AIMR uses a keyword-based analysis process to extract AI-related information from publicly accessible university documentation. This information was then analysed qualitatively and converted onto a numerical scale indicating how far the university's published policy and student guidance documents showed them as more prepared to address AI-based academic misconduct. A scale of 1 (most prepared) to 4 (least prepared) was used.

The sample universities were all found to have publicly accessible academic integrity or misconduct policies and based on the sample, an arithmetic mean AIMR rating of 2.83 ± 0.91 was obtained. This indicated a potential lack of

readiness of UK universities to address AI misuse based upon published documentation. This was positioned alongside vague offence and third-party service definitions which lacked a reflection of the technologically driven potential for academic misconduct, suggesting that more work in this area is needed across the higher education sector.

The authors note that this research was conducted in a field that is rapidly evolving and that universities are beginning to roll out guidance on AI tool usage. It is anticipated that further developments across the sector will allow examples of good practice in AI policy and guidance development to be shared during the conference presentation. This will also consider the general principles that are vital for implementation to weather the potential threat of AI-related academic misconduct. It is hoped that this will provide timely student-led input into the discussions on AI that are happening in higher education both in the UK and more widely around the world.

References

Complete University Guide (2023) *University League Tables 2023*. Available at: https://www.thecompleteuniversityguide.co.uk/league-tables/rankings (Accessed: 27 February 2023).

Dwivedi, Y.K. *et al.* (2021) 'Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy', *International Journal of Information Management*, 57(August 2019), p. 101994. doi:10.1016/j.ijinfomgt.2019.08.002.

Google (2023) *Google Trends Data (AI, Artificial Intelligence, ChatGPT and OpenAI) from 13/03/22-04/03/23*. Available at: https://www.google.com/trends (Accessed: 4 March 2023).

L. Holden, O., E. Norris, M. and A. Kuhlmeier, V. (2021) 'Academic Integrity in Online Assessment: A Research Review', *Frontiers in Education*, 6(July), pp. 1–13. doi:10.3389/feduc.2021.639814.

Swiecki, Z. *et al.* (2022) 'Assessment in the age of artificial intelligence', *Computers and Education: Artificial Intelligence*, 3(April), p. 100075. doi:10.1016/j.caeai.2022.100075.

The Benefits of Academic Integrity Networks – Exploring the London and South East Academic Integrity Network

Thomas Lancaster[1], Steph Allen[2] & Mary Davis[3]

[1]Imperial College London, UK

[2]Bournemouth University, UK

[3]Oxford Brookes University, UK

This session provides a case study of the formation, development and operation of the London and South East Academic Integrity Network (LSEAIN). The session will consider the role of academic integrity networks in general, and the benefits and challenges of this style of collaboration.

LSEAIN is one of several academic integrity groups operating around the United Kingdom, allowing members to share information in a private and secure setting, discuss the latest developments in the academic integrity space, and to find solutions to challenges within their own institutions. Members of LSEAIN will be on hand to answer questions and new members in the region are welcome to join.

The aim of this session is to use example of LSEAIN to inspire and assist attendees in other regions around the world to set up their own academic integrity groups. The session will provide attendees with ideas about how they can get started and also consider potential pitfalls for them to avoid.

LSEAIN was established in May 2021, largely following requests from people in the region who were looking for the opportunity to discuss academic integrity related matters. The network initially met online as travel was difficult. Meetings have remained online ever since as this has been considered convenient for all concerned. The network is informal and unfunded. There are no official university representatives and meetings are conducted under Chatham House rules. The network meets as a larger group approximately every two months for a two-hour meeting slot. As of January 2023, the network has 34 members.

A general structure for each meeting has been established as follows:

- Welcome to new members
- Member updates
- Working group updates
- Discussion of a main topic agreed by the membership
- Open discussion
-

Currently LSEAIN has three separate working groups:

- Local organisation of the International Day of Action against Contract Cheating (likely to be known as the International Day of Action for Academic Integrity in October 2023)
- Putting academic integrity into practice – this group also offers a range of training seminars to academic institutions in the UK and abroad
- Best practice in policies
-

Two previous, concluded working groups are:

- Contract cheating checklist (resources developed by the group are available at https://rise.articulate.com/share/dPC3F7wAQgeKahu71aUg0vBKfEUg8vsj#)
- Academic integrity champions

LSEAIN also provides members with the opportunity to discuss current topics of interest in academic integrity, an important part of establishing a successful network. The group will present topics that members have determined to be of current interest. For reference, previous topics discussed at LSEAIN meetings have included:

- Online proctoring and online assessment
- Training staff around academic integrity matters
- Engaging students in the academic integrity discussion
- Policy development surrounding whistleblowing and attempts to extort students
- Understanding discipline differences in academic integrity approaches and

providing support for non-textual disciplines
- Designing assessments to help students avoid academic integrity pitfalls
- Essay bots, artificial intelligence and automated assessment producing systems
- Developing understandable, inclusive, accessible, and future proof policies
- Incorporating the student voice into the agenda
- Professional values and employability as these relate to academic integrity

The network remains agile and many members work together outside of the main meetings. There is great expertise within the network for those who want to book guest speakers. The strength of the network is the range of different university roles and style of institutions representing, including senior members of universities, professional services staff, policy developers, teaching focused staff, and Student Union representation.

It has become apparent that the issues one university is facing are often shared by others, so a place for discussion is incredibly valuable. Similarly, it has been useful to have an outlet so share good practice happening at individual universities that would not otherwise be widely communicated. Delegates who attend this session will come away with greater awareness of the value of academic integrity networks and a clear method for setting up, maintaining, and making the most of the network.

ACADEMIC INTEGRITY POLICIES IN HIGHER EDUCATION INSTITUTIONS: A CORPUS LINGUISTICS INVESTIGATION OF RESPONSES TO TECHNOLOGICAL THREATS

Mike Perkins & Jasper Roe

British University Vietnam, Vietnam

Methodological Note

This abstract was written with the support of the OpenAI ChatGPT tool to summarise text from a draft version of a more developed manuscript. Any textual outputs have been reviewed, edited, and adjusted as appropriate by the authors.

Introduction

According to Curtis (2022), incidences of academic misconduct including plagiarism, may have decreased between 1990 and 2020. However, it is unclear if there has been a true reduction or stabilization in overall misconduct, or whether any decrease could be explained by an increased use of newer, less detectable forms of misconduct. This misconduct may be aided by technology in the case of Automated Paraphrasing Tools (APTs) or Artificial Intelligence (AI) based Large Language Models (LLMs), which are inherently challenging to detect. Given the lack of data on student use of APTs or LLMs during the COVID-19 pandemic and the possibility of increased academic misconduct during this time (Roe, 2022), it is important to understand how Higher Education Institutions (HEIs) disseminate information about the acceptability of such tools in their policies. In this study, we analyse the policies of 142 HEIs using corpus linguistics techniques to understand the frequency and presence of terms related to APTs, LLMs and other major threats to academic integrity. We discuss options that HEIs may explore as they develop their academic integrity policies, and propose an update to the exemplary academic integrity policy model (Bretag et al., 2011).

Literature

Although the use of computer-based tools to assist in undertaking academic work is not new, there are now complex tools available to students which may enable plagiarism to go undetected such as APTs and LLMs. Rogerson and McCarthy (2017) define APTs as web-based applications using Machine Translation (MT) to convert text from one form to another, including between languages. These tools may allow for the disguising of where source material has been drawn from, and therefore avoid text matching software used for plagiarism detection.

AI based LLMs have provided a new tool which may be used by students to engage in academic misconduct. LLMs use advanced Natural Language Processing (NLP) to generate original text from a user provided input which goes beyond paraphrasing. Recently available tools provided by OpenAI such as GPT-3 (Brown et al., 2020) and ChatGPT (OpenAI, 2022) amongst others, have led to an explosion of interest on how these tools may affect academic integrity, especially as emerging research suggests that LLMs can produce output which cannot be accurately detected by human-based methods (Abd-Elaal et al., 2022; Köbis & Mossink, 2021), or technological based methods (Biderman & Raff, 2022; Fröhling & Zubiaga, 2021). When compared to APTs, these LLM based tools demonstrate an increased threat to academic integrity, given the fluency of the created output, and their inability to be detected (Perkins, 2023).

Previous studies of HEI academic integrity policies have been conducted in Australia (Bretag et al., 2011; Kaktiņš, 2014; Mahmud & Bretag, 2014), New Zealand (Möller, 2022), Canada (Eaton, 2017; Miron et al., 2021; Stoesz et al., 2019; Stoesz & Eaton, 2022), the EU (Foltýnek & Glendinning, 2015; Glendinning, 2013), Latvia and Lithuania (Anohina-Naumeca et al., 2018) and South East Europe (SEEPPAI, 2017). Although many studies use Bretag's (2011) exemplary academic integrity policy model as the basis of their analysis, few, if any HEIs explored in previous studies have academic integrity policies which cover all elements of the model.

However, there have been no studies which have taken a broader comparative approach on a global basis, focusing on a specific element of academic integrity policy. This research addresses this by focusing on the complex technological tools of APTs and LLMs which may be used by students to engage in academic misconduct.

Methodology

This study used techniques from corpus linguistics to examine a specialized corpus created using SketchEngine, consisting of publicly available academic integrity policies from global HEIs. Policies were obtained from the top ten Quacquarelli Symonds (QS) ranked HEIs across six global geographical regions, as well as from member institutions of the European Network of Academic Integrity (ENAI) and the International Center for Academic Integrity (ICAI). Inclusion criteria for policies included being from a HEI, being public-facing and available online in English, and addressing academic integrity and misconduct issues.

This resulted in 142 policies being obtained. The corpus was analyzed using keyword analysis, collocation analysis, frequency analysis, and searches to explore the presence or absence of terms related to AI, automated paraphrasing tools, and LLMs, as well as other current threats to academic integrity such as contract cheating and machine translation.

Results

The keyword and collocation analysis revealed a broad focus on textual plagiarism, as well as a generally punitive, reactive discourse on academic integrity, similar to the results found in Stoez and Eaton's (2022) analysis of Canadian HEI policies.

While the term "paraphrasing" occurred frequently in the corpus, only one policy mentioned APTs, with a further one mentioning text spinning. Although translation was mentioned by four policies, there was no mention of machine-translated text. Third parties, contract cheating, and collusion were mentioned more frequently in the corpus, with 18, 31, and 29 policies respectively mentioning these terms.

Only one HEI referred to AI or LLMs in their academic integrity policy. This institution was also the only one to make specific reference to APTs. This suggests that HEIs may not yet be fully aware of the potential impact of these tools on academic integrity, and therefore may be at significant risk over the next few years as these tools become more commonplace among students.

Discussion

Overall, these results suggest that HEIs need to develop new policies and strategies to clarify to students and academic staff what is and is not acceptable when it comes to the use of these technological tools in academic writing. Given their rapid development, we recommend that HEIs must be explicit about how these tools may be used, recognising that a fully restrictive approach to LLMs would be challenging to enforce. We also propose an update to Bretag's (2011) exemplary academic integrity policy model to include a component specifically considering technological threats to academic integrity.

References

Abd-Elaal, E.-S., Gamage, S. H., & Mills, J. E. (2022). Assisting academics to identify computer generated writing. *European Journal of Engineering Education*, 1–21. https://doi.org/10.1080/03043797.2022.2046709

Anohina-Naumeca, A., Tauginienė, L., & Odineca, T. (2018). Academic integrity policies of Baltic state- financed universities in online public spaces. *International Journal for Educational Integrity*, *14*(1), Article 1. https://doi.org/10.1007/s40979-018-0031-z

Biderman, S., & Raff, E. (2022). *Fooling MOSS Detection with Pretrained Language Models* (arXiv:2201.07406).arXiv. https://doi.org/10.48550/arXiv.2201.07406

Bretag, T., Mahmud, S., Wallace, M., Walker, R., James, C., Green, M., East, J., McGowan, U., & Patridge, L. (2011). Core elements of exemplary academic integrity policy in Australian higher education. *International Journal for Educational Integrity*, *7*(2), Article 2. https://doi.org/10.21913/IJEI.v7i2.759

Brown, T. B., Mann, B., Ryder, N., Subbiah, M., Kaplan, J., Dhariwal, P., Neelakantan, A., Shyam, P., Sastry, G., Askell, A., Agarwal, S., Herbert-Voss, A., Krueger, G., Henighan, T., Child, R., Ramesh, A., Ziegler, D. M., Wu, J., Winter, C., … Amodei, D. (2020). *Language Models are Few-Shot Learners* (arXiv:2005.14165). arXiv. https://doi.org/10.48550/arXiv.2005.14165

Eaton, S. E. (2017). Comparative Analysis of Institutional Policy Definitions of Plagiarism: A Pan-Canadian University Study. *Interchange*, *48*(3), 271–281. https://doi.org/10.1007/s10780-017-9300-7

Foltýnek, T., & Glendinning, I. (2015). Impact of Policies for Plagiarism in Higher Education Across Europe: Results of the Project. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, *63*(1), 207–216. https://doi.org/10.11118/actaun201563010207

Fröhling, L., & Zubiaga, A. (2021). Feature-based detection of automated language models: Tackling GPT-2, GPT-3 and Grover. *PeerJ Computer Science*, *7*, e443. https://doi.org/10.7717/peerj-cs.443

Glendinning, I. (2013). *Comparison of policies for academic integrity in higher education across the European Union*.

Kaktiņš, L. (2014). Appraising plagiarism policies of Australian universities. *Text & Talk*, *34*(2), 117–141. https://doi.org/10.1515/text-2013-0040

Köbis, N., & Mossink, L. D. (2021). Artificial intelligence versus Maya Angelou: Experimental evidence that people cannot differentiate AI-generated from human-written poetry. *Computers in Human Behavior*, *114*, 106553. https://doi.org/10.1016/j.chb.2020.106553

Mahmud, S., & Bretag, T. (2014). Fostering Integrity in Postgraduate Research: An Evidence-Based Policy and Support Framework. *Accountability in Research*, *21*(2), 122–137. https://doi.org/10.1080/08989621.2014.847668

Miron, J., McKenzie, A., Eaton, S. E., Stoesz, B., Thacker, E., Devereaux, L., Persaud, N., Steeves, M., & Rowbotham, K. (2021). Academic Integrity Policy Analysis of Publicly-Funded Universities in Ontario, Canada: A Focus on Contract Cheating. *Canadian Journal of Educational Administration and Policy*, *197*, Article 197. https://journalhosting.ucalgary.ca/index.php/cjeap/article/view/72082

Möller, A. (2022). An analysis of university academic integrity policies in New Zealand. *Journal of Further and Higher Education*, *0*(0), 1–13. https://doi.org/10.1080/0309877X.2022.2130195

OpenAI. (2022, November 30). *ChatGPT: Optimizing Language Models for Dialogue*. OpenAI. https://openai.com/blog/chatgpt/

Perkins, M. (2023). Academic Integrity considerations of AI Large Language Models in the post-pandemic era: ChatGPT and beyond. *Journal of University Teaching & Learning Practice*, *20*(2). https://doi.org/10.53761/1.20.02.07

SEEPPAI. (2017). *South East European Project on Policies for Academic Integrity: Final Report*. http://www.plagiarism.cz/seeppai/Final-report_SEEPPAI.pdf

Stoesz, B. M., & Eaton, S. E. (2022). Academic Integrity Policies of Publicly Funded Universities in Western Canada. *Educational Policy*, *36*(6), 1529–1548. https://doi.org/10.1177/0895904820983032

Stoesz, B. M., Eaton, S. E., Miron, J., & Thacker, E. J. (2019). Academic integrity and contract cheating policy analysis of colleges in Ontario, Canada. *International Journal for Educational Integrity*, *15*(1), Article

https://doi.org/10.1007/s40979-019-0042-4

Sharing Experiences: Development of a game-based module to raise awareness on avoiding plagiarism

[1]Zeenath Reza Khan, [2]Mike Reddy, [3]Tan Chin Ike, [4]Jarret Dyer, [5]Salim Razı, [6]Sonja Bjelobaba, [7]Shivadas Sivasubramaniam, [8]Ann Rogerson, [9]Lorna Waddington,

[1]University of Wollongong in Dubai, UAE,
[2] University of South Wales, UK
[3]Asia Pacific University of Technology and Innovation, Malaysia,
[4]College of DuPage, USA,
[5]Canakkale Onsekiz Mart University, Türkiye,
[6]Uppsala University, Sweden,
[7]University of Derby, UK,
[8]University of Wollongong, Australia,
[9]University of Leeds, UK,

Introduction

Plagiarism has been defined as an act when one person uses someone else' intellectual property (or reuses their own) without proper acknowledgement (Fishman, 2009). Although there are powerful text-matching software in the market to help identity and investigate text-matching cases that may lead to a finding of plagiarism (Foltynek et al., 2020), access to multi-million-dollar 'answer-providing' or 'academic support' companies (Adams, 2021), as well as artificial intelligence (AI) tools for content generation (Reich, 2022) and paraphrasing (Roe & Perkins, 2022) have further complicated the detection and prevention of such academic misconducts.

Approaches to addressing misconduct include, amongst other things, the use of : honour-codes; traditional detection and punishment; educational approaches such as training modules and workshops; and referencing materials. Some are designed to discover and punish misconduct, others to develop a culture of integrity. Proactive measures such as feedback-led interactive learning modules might act as a deterrent for such behaviour (Owens & White, 2013; Cronan et al., 2017; Stephens et al., 2021), but these can be perceived as inaccessible; encouraging rote learning or involving trial and error quizzes (Khan, 2021). Moreover, Benson et al. (2019) and Lowe et al. (2018) highlighted that existing approaches do not cover all aspects of academic integrity values and policies, often consisting of static "click and select" experiences with some animation.

Game-based learning

While learning modules are a proactive step to building a culture of integrity, it is crucial to understand how students learn and interact with content. Making students "active learners" and partners in the journey can help ensure they understand what is being taught while embracing integrity (Freeman et al., 2014). Academics have recognised the benefits of using game-based learning (GBL), due to greater engagement with participants, knowledge retention, and transfer of knowledge and skills beyond the immediate course or content (Lee & Hammer, 2011; Smith, 2014; Khan et al., 2021). It is important to distinguish GBL from 'gamification', which is the technique of enhancing existing tasks through game-like activities, e.g. receiving badges or achievements, etc. GBL is a positive desired behaviour abstracted into a game setting. It increases problem solving skills, memory capacity and IT literacy. Studies also show that GBL is beneficial to individuals with attention disorders (Pohl et al., 2009).

Game-based learning is characterised as a complex balance between the engaging nature of video games and traditional learning approaches. Combining these two elements may lead to a more effective cognitive acquisition and retention of knowledge for learners (Ahmad, Rahim, & Arshad, 2014), and lead to a positive impact on their learning (Sepeh and Head, 2018). However, understanding of game design principles is essential to increased engagement (Schell, 2014). Using a gamified approach – a method to create the psychological experience of playing a game outside the context of an actual game – one can simulate the artefact of gameplay, including the visual elements, UX/UI, feedback, outcomes, goals, and objectives (Tan et al., 2021).

GAIV workshop aim and outcome

This presentation outlines the process used to develop a game-based module to help raise awareness on plagiarism as part of a Teaching and Learning Grant received from University of Wollongong to a multi-campus, multi-investigator project in 2021-2023 titled "Gamifying academic integrity values to shape students into future responsible citizens" (GAIV, 2023). The presentation aims to provide a detailed step by step software development process that led to the final beta version of the game called UOW Age of Integrity. It will also share the experiences in generating game-based learning activities in the field of academic integrity involving a multi-discipline task force.

The project partnered with the European Network for Academic Integrity (ENAI)'s Gamification of Academic Integrity Working Group, led by a University of Wollongong in Dubai faculty, and aimed to extend preliminary work reported in Khan et al. (2021) on understanding gamification of academic integrity to develop learning modules using gamification and test the effectiveness of such application across campuses through deployment observation, and feedback.

The group was divided into three sub-groups Analysts; Content Creators; Designers and Developers. To roll out the project, the team followed a game development life cycle (as illustrated in figure 1):

- Initial background study including focus group interviews with the target audience
- Target audience expectations from a GBS
- Design and development of GBS
- Deploy and Test GBS
- Determine effectiveness of GBS
- Cycle back to the expectations of the target audience and repeat

Based on the above spiral development methodology, first proposed by Boehm (1988) and updated in Boehm (2000), the team was able to develop and deploy a 'proof of concept' alpha, then a more complete beta version of the UOW Age of Integrity game-based module that can be tested at a link to be shared during game presentation.

A second focus group to determine the effectiveness of the game-based module – as well as responding to the evaluation of the game as a game rather than just for its educational benefits – will lead to a third iteration of the spiral of development. As part of the final release, additional support material is being developed for distance use across different campuses that will help to direct faculty to the way they may use the game, incorporate the game into their lesson, learning management system and so on.

This is a narrative descriptive presentation about the journey taken by this group to develop game-based learning suitable for university students. Here we will detail our experience in devising appropriate tools, interesting games related to the field of academic integrity and show examples of some games, including a demonstration of our beta version of the game we have developed. We will also present the current form of this development process.

References

Adams, S. (2021, March 31). This $12 billion company is getting rich off students cheating their way through Covid. *Forbes.*

https://www.forbes.com/sites/susanadams/2021/01/28/this-12-billion-company-is-getting-rich-off-students-cheating-their-way-through-covid/?sh=5443e192363f

Ahmad, M., Ab Rahim, L., & Arshad, N. (2014). A review of educational games design frameworks: An analysis from software engineering. *In the proceedings of 2014 International Conference on Computer and Information Sciences* (ICCOINS, pp. 1-6). Kuala Lumpuur, Malaysia.

https://doi.org/10.1109/ICCOINS.2014.6868452

Benson, L., Rodier, K., Enström, R., & Bocatto, E. (2019). Developing a university-wide academic integrity E-learning tutorial: A Canadian case. *International Journal for Educational Integrity, 15*(5).https://doi.org/10.1007/s40979-019-0045-1

Boehm, B. (1988). A spiral model of software development and enhancement. *Computer, 21*(5), 61-7.

Boehm, B. (2000, February 9). Spiral development: Experience, principles, and refinements (pp. 1–37). Software Engineering Institute.

Cronan, T., McHaney, R., Douglas, D., & Mullins, J. (2017). Changing the academic integrity climate on campus using a technology-based intervention. *Ethics & Behavior, 27*(2), 89–105. https://doi.org/10.1080/10508422.2016.1161514

Curtis, G., McNeill, M., Slade, C., Tremayne, K., Harper, R., Rundle, K., & Greenaway, R. (2021). Moving beyond self-reports to estimate the prevalence of commercial contract cheating: An Australian study. Studies in Higher Education. https://doi.org/10.1080/03075079.2021.1972093

Dey, S. (2021, August 27). Reports of cheating at colleges soar during the pandemic. *NPR News.* https://www.npr.org/2021/08/27/1031255390/reports-of-cheating-at-colleges-soar-during-the-pandemic

De Oliveira, D. (2011). The use of focus groups to investigate sensitive topics: An example taken from research on adolescent girls' perceptions about sexual risks. *Ciência & Saúde Coletiva, 16*(7), 3093-102. https://doi.org/10.1590/s1413-81232011000800009

Fishman, T. (2009). *"We know it when we see it" is not good enough: toward a standard definition of plagiarism that transcends theft, fraud, and copyright* [Paper presentation]. The 4th Asia Pacific conference on educational integrity, University of Wollongong NSW, Australia.

Foltýnek, T., Dlabolová, D., Anohina-Naumeca, A., Razı, S., Kravjar, J., Kamzola, L., Guerrero- Dib, J., Çelik, Ö., & Weber-Wulff, D. (2020). Testing of support tools for plagiarism detection. *International Journal of Educational Technology in Higher Education, 17*(46), 1-31. https://doi.org/10.1186/s41239-020-00192-4

Freeman, S., Eddy, S., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. (2014). Active learning increases student performance in science, engineering, and mathematics. *National Academy of Sciences (PNAS), 111*(23), 8410-8415. https://doi.org/10.1073/pnas.1319030111

GAIV. (2022, February 10). *Gamifying academic integrity values project 2022.* YouTube. https://youtu.be/niYZ-i5XXGQ

Games & Learning. (2014). Survey: Teachers, games and assessing students: A games and learning research report. Joan Hanz Cooney Centre. https://www.gamesandlearning.org/2014/07/23/survey-teachers-games-and-assessing-students/

Pohl, M., Rester, M., & Judmaier, P. (2009). Interactive game based learning: Advantages and disadvantages. In Stephanidis (Ed.), *Universal Access in HCI, Part III, HCII 2009, LNCS 5616* (pp. 92–101). Springer-Verlag Berlin Heidelberg.

Högberg, J., Hamari, J., & Wästlund, E. (2019). Gameful experience questionnaire (GAMEFULQUEST): An instrument for measuring the perceived gamefulness of system use. *User Modeling and User-Adapted Interaction, 29*(3), 619-660.

Khan, Z. (2021). *Policy and learning module review findings snapshot – paving way for educative, holistic, inclusive policy and procedure for academic integrity.* Report Submitted to Education Committee February 2020 – Revised version July 2021. Global Challenges Funded Project Outcome #2018-GC1-ZRSM. University of Wollongong in Dubai.

Khan, Z., Dyer, J., Bjelobaba, S., Gomes, S. F., Henek Dlabolova, Sivasubramaniam, S., Mathew Biju, Hysaj, A., & Harish, P. (2021). Initiating count down - gamification of academic integrity. *International Journal for Educational Integrity, 17*(6). https://doi.org/10.1007/s40979-020-00068-0

Kitzinger, J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociology of Health and Illness, 16,* 103–121.

Kitzinger, J., & Barbour, R. (1999). Introduction: The challenge and promise of focus groups. In R. S. Barbour & J. Kitzinger (Eds.), *Developing focus group research: Politics, theory and practice* (pp. 1–20). Sage.

Krueger, R. A. (1988). *Focus groups: A practical guide for applied research.* Sage.

Lancaster, T., & Cotarlan, C. (2021). Contract cheating by STEM students through a file sharing website: A Covid-19 pandemic perspective. *International Journal for Educational Integrity, 17*(3). https://doi.org/10.1007/s40979-021-00070-0

Lee, J., & Hammer, J. (2011). Gamification in education: What, how, why bother? *Academic Exchange Quarterly, 15*(2), 1-5.

Lowe, M., Londino-Smolar, G., Wendeln, K., & Sturek, D. L. (2018). Promoting academic integrity through a stand-alone course in the learning management system. *International Journal for Educational Integrity, 14*(13). https://doi.org/10.1007/s40979-018-0035-8

Morse, M. J. (1994). Designing funded qualitative research. In Y. S. Denzin & N. K. Lincoln (Eds.), *Handbook of qualitative research* (pp. 220–235). Sage.

Owens, C., & White, F. (2013). A 5-year systematic strategy to reduce plagiarism among first-year psychology university students. *Australian Journal of Psychology, 65,* 14–21. https://doi.org/10.1111/ajpy.12005

Reich, R. (2022, November 28). Now AI can write students' essays for them, will everyone become a cheat? *The Guardian.* https://www.theguardian.com/commentisfree/2022/nov/28/ai-students-essays-cheat-teachers-plagiarism-tech

Roe, J., & Perkins, M. (2022). What are automated paraphrasing tools and how do we address them? A review of a growing threat to academic integrity. *International Journal for Educational Integrity, 18*(15). https://doi.org/10.1007/s40979-022-00109-w

Sepehr, S., & Head, M. (2018). Understanding the role of competition in video gameplay satisfaction. *Information & Management, 55*(4), 407-421. https://doi.org/10.1016/j.im.2017.09.007

Schell, J. (2014). *The art of game design: A book of lenses.* CRC Press.

Smith, D. (2014, January 26). A brief history of gamification [#infographic]. *EdTech Focus on Higher Education.* https://edtechmagazine.com/higher/article/2014/07/brief-history-gamification-infographic

Stephens, J., Watson, P., Alansari, M., Lee, G., & Turnbull, S. (2021). Can online academic integrity instruction affect university students' perceptions of and engagement in academic dishonesty? Results from a natural experiment in New Zealand. *Frontiers in Psychology, 12*, 569133. https://doi.org/10.3389/fpsyg.2021.569133

Stewart, D., & Shamdasani, P. (1990). *Focus groups: Theory and practice.* Sage.

Stewart, D., Shamdasani, P., & Rook, D. (2007). *Focus groups: Theory and practice.* Sage.

Takeuchi, L., & Vaala, S. (2014). *Level up learning: A national survey on teaching with digital games.* New York: The Joan Ganz Cooney Center at Sesame Workshop. https://www.joanganzcooneycenter.org/wp-content/uploads/2014/10/jgcc_leveluplearning_final.pdf

Tan, C., Wong, C., Abdullah, A., & Lee, J. (2021, September). Investigating the effects of social gameplay elements in gamifying online classes. In the European *Conference on Games Based Learning* (pp. 709-XXII). Academic Conferences International Limited.

Personality Traits and Academic Integrity in The Hy Flex Learning Environment among STEM Students

Yovav Eshet[1], Nomy Dickman[2] & Yossi Ben Zion[3]

[1]Department of Behavioral Sciences, Zefat Academic College, Israel

[2]Faculty of medicine, Bar Ilan University, Israel

[3]Department of Physics, Bar Ilan University, Israel

During COVID-19, academic facilities across the globe were forced to rapidly shift from traditional face-to-face (F2F) teaching to emergency remote teaching (ERT) and hybrid education, such as HyFlex (Saha et al., 2022). The HyFlex course design provides both semi-directional and bi-directional student-lecturer communication. Choosing the mode of attendance allows students to save time and course conflicts, and can be motivating for them, but can also lead to faulty outcomes (Drea, 2022), such as exploiting bugs and loopholes in submission systems. Differences in academic outcomes have been reported between students who chose hybrid or F2F HyFlex and those who chose to attend remotely (Green, 2021), yet little is known about the correlates of unethical student behaviour across the different HyFlex attendance modes. Although many contributing factors to academic dishonesty have been cited in the literature, there is no consensus regarding its primary cause. Some have emphasised either situational factors (Walker et al., 2021) or individual characteristics (Adzima, 2020), others have focused on the interaction between situational and individual variables as predictors of academic dishonesty (Peled et al., 2019).

Our study is based upon Deterrence and Neutralisation theories. Deterrence theory posits that students are more likely to engage in academic misconduct when they believe that the benefits of their dishonest actions outweigh the risks of being caught (Chirikov et al., 2020). For example, regarding the relationship between academic dishonesty and the learning environment, remote instruction is associated with a sense of anonymity, leading to an increased perception of opportunities for cheating (Adzima, 2020). According to the Neutralisation theory, students may justify their dishonest behaviour by claiming they have been victims of circumstances. The denial of responsibility protects students from being held accountable or feeling guilty for their actions (Stiles et al., 2018). In the context of remote instruction, students, for example, may feel compelled to cheat if they feel uncertain about the content being tested or how it will be administered (Chen et al., 2022). These theories are supplemented by a different but complementary framework, the Big Five personality traits theory holds that students behave dishonestly depending on their key dispositional traits (Giluk & Postlethwaite, 2015).

This study's research question was: What is the impact of the HyFlex learning environment, dispositional demographic factors, and personality traits on academic integrity? We hypothesised that academic integrity level will differ between the three HyFlex attendance modes and between students with different personalities, depending on their attendance mode.

The research sample consisted of 535 STEM students from public university in Israel, 56% were women and 44% were men, the mean age was 22.77 years (SD = 3.16). Students chose, for any given class, their preferred modality out of three HyFlex modes of attendance: primarily F2F, primarily online, or a hybrid of the two. Personality traits were examined using the ten-item personality inventory (TIPI) - a brief version of the Big Five Factor (Gosling et al., 2003). Academic Integrity was examined using the Academic Integrity Inventory (Kisamore et al., 2007), translated into Hebrew. Data were analysed via one-way and two-way ANOVA, Independent sample t-test, Pearson correlation, and multiple regression analysis using SPSS software version 27.

Results indicated no difference in academic integrity across STEM disciplines. Yet, students who attended primarily F2F had lower levels of academic integrity compared to hybrid-based attendance and primarily online attendance. The personality traits of emotional stability and agreeableness were weakly yet positively related to the level of academic integrity, both irrespective of attendance mode and in primarily F2F. In the hybrid mode these correlations were stronger, as higher levels of agreeableness, conscientiousness, and emotional stability, indicated higher levels of academic integrity. Moreover, agreeableness was found to be a major predictor of academic integrity in HyFlex courses. Other significant predictors were the primarily online mode, the hybrid mode, gender, and marital status. Lastly, the combination of extraversion and primarily F2F attendance created

low academic integrity levels compared to the primarily online and hybrid modes.

Most existing literature on HyFlex is either exploratory or qualitative and only focuses on students' experiences, organisational implementation, or technological design. Empirical studies have only started to develop, and more research is needed into different pedagogical scenarios and their impact on student outcomes, including ethical behaviour. This study emphasizes the importance of providing students with an optimal learning environment. Academic institutions should provide proper training to faculty and technical support teams, this is key to students and instructors benefiting from HyFlex STEM teaching. Furthermore, lecturers should consider personality characteristics associated with high levels of academic integrity when designing HyFlex STEM courses, as we found some critical individual differences may affect students' academic integrity.

The conference presentation will include a Power Point presentation with the main findings, with an emphasis on its linkage to recent literature and future outcomes.

References

Adzima, K. (2020). Examining online cheating in higher education using traditional classroom cheating as a guide. *Electronic Journal of E-Learning*, *18*(6), 476–493.

Chen, V., Sandford, A., LaGrone, M., Charbonneau, K., Kong, J., & Ragavaloo, S. (2022). An exploration of instructors' and students' perspectives on remote delivery of courses during the COVID-19 pandemic. *British Journal of Educational Technology*, *53*(3), 512–533.

Chirikov, I., Shmeleva, E., & Loyalka, P. (2020). The role of faculty in reducing academic dishonesty among engineering students. *Studies in Higher Education*, *45*(12), 2464–2480.

Drea, J. (2022). Improving learning outcomes through choice-based course delivery: The choice model. *Journal of Education for Business*, *97*(5), 335–342. https://doi.org/10.1080/08832323.2021.1960469

Giluk, T. L., & Postlethwaite, B. E. (2015). Big Five personality and academic dishonesty: A meta-analytic review. *Personality and Individual Differences*, *72*, 59–67.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*(6), 504–528.

Green, K. (2021). Lecture modality: Student attendance choices and performance. In T. G. Calderon (Ed.), *Advances in Accounting Education: Teaching and Curriculum Innovations* (Vol. 25, pp. 119–131). Emerald Publishing Limited. https://doi.org/10.1108/S1085-462220210000025008

Kisamore, J. L., Stone, T. H., & Jawahar, I. M. (2007). Academic integrity: The relationship between individual and situational factors on misconduct contemplations. *Journal of Business Ethics*, *75*(4), 381–394.

Peled, Y., Eshet, Y., Barczyk, C., & Grinautski, K. (2019). Predictors of academic dishonesty among undergraduate students in online and face-to-face courses. *Computers & Education*, *131*, 49–59.

Saha, S. M., Pranty, S. A., Rana, M. J., Islam, M. J., & Hossain, M. E. (2022). Teaching during a pandemic: do university teachers prefer online teaching? *Heliyon*, *8*(1), e08663. https://doi.org/10.1016/j.heliyon.2021.e08663

Stiles, B. L., Wong, N. C. W., & LaBeff, E. E. (2018). College cheating thirty years later: The role of academic entitlement. *Deviant Behavior*, *39*(7), 823–834. https://doi.org/10.1080/01639625.2017.1335520

Walker, E. R., Lang, D. L., Alperin, M., Vu, M., Barry, C. M., & Gaydos, L. M. (2021). Comparing student learning, satisfaction, and experiences between hybrid and in-person course modalities: A comprehensive, mixed-methods evaluation of five public health courses. *Pedagogy in Health Promotion*, *7*(1), 29–37. https://doi.org/10.1177/2373379920963660

DEVELOPING UNIVERSITY ASSESSMENT AND ACADEMIC MISCONDUCT POLICY IN RESPONSE TO ARTIFICIAL INTELLIGENCE AND MACHINE TRANSLATION TOOLS

Stephen Gow & Eddie Cowling

University of York, UK

The academic community has long contended with the implications of technology, particularly the challenges it presents to assessment and academic integrity. The increasing use and proficiency of machine translation technology in recent years has, for example, challenged traditional approaches to language learning and assessment (Groves and Mundt, 2021). Meanwhile, AI writing assistants (e.g. Grammarly) and automated paraphrasing tools (e.g. Quillbot) allow students to rapidly and painlessly improve their writing, yet the acceptability of such tools in coursework and exams is hotly debated (Roe and Perkins, 2022). These have been the canary in the coalmine giving indication of the impact of AI on assessment and academic integrity in higher education, which reached a watershed moment towards the end of 2022 with the release of ChatGPT.

AI and digital tools arguably have the potential to liberate and empower students and educators, allowing for more time to focus on deeper thinking and learning (Cope & Kolanatzis, 2019; 2021). There are, however, major concerns about the threats to assessment validity and academic integrity (Eaton, 2022) and student privacy and security, as well as a 'digital divide' and subsequent exacerbation of existing inequalities (Cox, 2021). Groves and Mundt (2021) have found that although academics are not necessarily opposed to the use of machine translation tools, there is a perceived need for institutional-level policy to establish consistent approaches of acceptability.

Whether it be machine translation or ChatGPT, the cat is out of the bag, and it is crucial to acknowledge such tools within assessment policy and guidance. In this presentation, we reflect on our institution's journey to formulate workable policy and guidance with regards to AI, machine translation and digital tools.

Methods

The University of York has been developing policy on translation tools since 2019, when the impact of Google Translate had become significantly noticeable in academic misconduct cases. In 2021, we noted the release of GPT-3 by OpenAI and recognised the implications for the academic integrity of many more assessments. In 2022, to help to develop policy in this area and raise awareness for this issue, a survey was developed internally by members of the International Pathway College (IPC), Standing Committee for Assessment, Dept. of Education and Dept. of Language and Linguistic Science. A small internal pilot was carried out and ethical approval was gained from the IPC Ethics Committee. The survey included ten questions exploring references to machine translation and artificial intelligence tools in policy and guidance on student usage. Three quantitative questions aimed to assess whether institutions or individual departments have specific policy of translation software or AI tools. The further seven questions required qualitative responses and requested a follow-up interview. The survey was distributed to several mailing lists related to foreign language learning, EAP, academic integrity and learning development. The first survey was released in November 2022 receiving 80 UK and international responses.

ChatGPT was released days before the survey closed. Though smaller than its predecessor, GPT-3, the more efficient and specific use of the technology, coupled with the highly popular chat interface, lead to ChatGPT setting the world record for 100,000 million active users by some distance (Farseev, 2023). This has turned our initiative from quietly preparing policy and considering practical implications for an incoming crisis to having to rapidly develop policy and practice in a sector wide panic. The results of our survey, rather than being wasted, gave us a rare opportunity to repurpose our research to

provide a snapshot in time of the short-term impact of generative artificial intelligence on assessment and integrity policies. We are therefore (at the time of writing) resurveying respondents to update the data we gathered at the end of the 2022 to include comparative data for early 2023 with an extra question distinguishing between departmental and institutional AI policy. An additional qualitative question will also be added to collect respondents perception of the impact of ChatGPT and GPT-4 in their institutions.

Findings

The initial findings indicate that the majority of respondents did not have institutional policy on the use of machine translation or artificial intelligence tools. A minority indicated a policy was in development and a small percentage having a policy already in place. This was contrasted with departmental level analysis, where 26% of respondents had a policy on translation software, indicating that translation software was a more established tool but only at departmental level. This indicates that institutions have been slow to react to such fundamental opportunities for assessment and threats to academic integrity. We predict that the percentages of departments and institutions will have significantly changed with the majority of respondents indicating that they have a policy on AI tools or one is in development, with a smaller percentage having a policy in place.

The qualitative responses reveal the majority of respondents perceive a lack of institutional policy to address the usage of machine translation or AI tools. It paints the picture of a sector slow to address the concerns raised about translation software and AI tools, with the result being departments or even individual staff members developing their own policy. This leads to uncertainty and inconsistent approaches. It also reveals two key approaches: those who wish to embrace the technology to modernise assessments and those who wish to preserve the integrity of traditional assessments. These are not mutually exclusive. For those that have policy, there is the difficulty of detecting usage of these tools to enforce policy. We predict that participants will note the dramatic shift in institutional approaches due to the release of ChatGPT. There are no easy answers, but by shining a light on current policy approaches, fundamental questions emerge about assessment design and how we assess learners. What is clear is that rather than reverting to more outdated approaches to assessment, is that we should use this threat to academic integrity as leverage to modernise assessment in higher education.

References

Chubb, J., Cowling, P. & Reed, D. (2021) Speeding up to keep up: exploring the use of AI in the research process. *AI & Society*. https://doi.org/10.1007/s00146-021-01259-0

Cope, B., & Kalantzis, M. (2019). Education 2.0: Artificial intelligence and the end of the test. *Beijing International Review of Education*, 1(2-3), 528-543.

Cope, B., Kalantzis, M. & Searsmith, D. (2021) Artificial intelligence for education: Knowledge and its assessment in AI-enabled learning ecologies, *Educational Philosophy and Theory*, 53:12, 1229-1245, https://doi.org10.1080/00131857.2020.1728732

Cox, A. (2021). The coming "intelligent university"? Exploring the potential impact of artificial intelligence (AI) and robots on UK Higher Education. *Society for Research in Higher Education*. https://srhe.ac.uk/wp-content/uploads/2021/01/Andrew-M-Cox-FinalReport-SRHE.pdf

Eaton, S. E. (2022). The Academic Integrity Technological Arms Race and its Impact on Learning, Teaching, and Assessment. *Canadian Journal of Learning and Technology*, 48(2).

Farseev, A. (2023) Is Bigger Better? Why The ChatGPT Vs. GPT-3 Vs. GPT-4 'Battle' Is Just A Family Chat. *Forbes, Innovation. Feb 17, 2023,*

Groves, M., & Mundt, K. (2021). A ghostwriter in the machine? Attitudes of academic staff

towards machine translation use in internationalised Higher Education. *Journal of English for Academic Purposes*, 50, 100957.

Roe, J., & Perkins, M. (2022). What are Automated Paraphrasing Tools and how do we address them? A review of a growing threat to academic integrity. *International Journal for Educational Integrity*, 18(1), 15.https://doi.org/10.1007/s40979-022-00109-w

Panel Discussion

Where to go next? Embracing new challenges and opportunities in research integrity and ethics, based on lessons learned from EU projects.

Panel Members: Julia Prieß-Buchheit, Mariëtte van den Hoven, Anna Abalkina & Lisa Diependaele

This panel discussion aims to explore the future of research integrity and ethics by examining lessons learned from past European Union (EU) projects, such as INTEGRITY and Path2Integrity. The conversation will focus on the pedagogical underpinnings of these projects, the tools developed, complementarities among projects, and the sustainability of the tools for long-term use. By reflecting on the experiences gained from these initiatives, the panel seeks to identify current topics and challenges in academic and research integrity and ethics and discuss how these insights could inform and create opportunities for new project proposals in these research areas.

In addition to delving into EU-funded projects, the panel will also discuss recent research conducted on integrity and ethics, highlighting the relevance of these studies to the broader research community. Furthermore, the panel will explore recent policy developments and remaining policy challenges at EU level and reflect on potential directions and priorities for future initiatives.

The discussion will conclude by emphasizing the opportunities and challenges that lie ahead in the field of academic and research integrity and ethics, underscoring the importance of partnerships and collaboration for tackling these issues. By drawing on the experiences of EU projects and considering the current state of research in this area, the panel aims to provide valuable insights and inspire further engagement in promoting academic and research integrity and ethics.

Workshop Session

AUTHORSHIP ATTRIBUTION IN MULTIDISCIPLINARY RESEARCH TEAMS: WHAT LESSONS CAN BE LEARNED FROM THE ENAI PROJECTS AND WORKING GROUPS?

Laura Ribeiro[1,2] & Ana Cristina Veríssimo[1]

[1]Department of Public Health and Forensic Sciences and Medical Education, Medical Education Unit, Faculty of Medicine, University of Porto, Portugal

[2]I3S-Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal

The research process, including the design, conduct, and dissemination, is a rigorous, intellectual activity built on trust (Tauginienė et al., 2018). At this level, fair authorship attribution ensures that authors are both credited and held accountable for the accuracy and integrity of their work. This contributes to uphold and reinforce the quality of science and society's trust in scientific research, researchers, academic institutions, and professional bodies (International Committee of Medical Journal Editors, 2021; Schroter et al., 2020).

Although ethical and responsible authorship is a core part underpinning the integrity, quality, and transparency of research, the attribution of authorship is often challenging (Tscharntke et al., 2007). The increasing complexity of modern research leads to more collaborative research and the establishment of global research networks, where multidisciplinary, international, and larger research teams combine their expertise and resources to produce innovative solutions to tackle complex issues (Papatheodorou et al., 2008; Smith et al., 2020b; Tscharntke et al., 2007). A good example is the European Network for Academic Integrity (ENAI, https://www.academicintegrity.eu/wp/) projects and working groups where several researchers from institutions in over 25 countries work together to produce research, seminars, and educational materials to be disseminated worldwide. Such teams have members from different fields, institutions, countries, and cultures, therefore sharing authorship norms and practices that often vary (when not ignored) (Smith et al., 2020a).

Additionally, authorship is widely used as a proxy of researchers' productivity, measured by the number of papers, citations, or the Hirsch index (Hirsch, 2005), greatly impacting their professional recognition and remuneration, career progress, and access to funding. In larger research groups, this can lead even more to authorship misrepresentations and disputes, where for example, people who have not contributed to the research are credited just for being in the team (honorary authorship), while others who contributed may not (ghost authorship), increasing the risk of unethical authorship (Schroter et al., 2020; Tscharntke et al., 2007). Larger teams also tend to produce multi-authored papers, a growing tendency across scientific disciplines, which compared to single-authored publications are more likely to be published in higher impact journals resulting in more citations (Smith et al., 2020b; Tscharntke et al., 2007).

Authorship criteria have been established by different bodies, such as the Committee on Publication Ethics (COPE, 2000) or the International Committee of Medical Journal Editors (ICMJE). The later (ICMJE, 2021, p.2) stating four criteria:

(i) substantial contributions to the conception or design of the work, or the acquisition, analysis, or

interpretation of data for the work; AND

(ii) drafting of the work or revising it critically for important intellectual content; AND

(iii) final approval of the version to be published; AND

(iv) agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

These guidelines, although widespread and generally recognized, do not seem to prevent unethical authorship, as many researchers are still unaware of them, or may selectively interpret or intentionally ignore them (Smith et al., 2020a).

In this workshop, we aim to encourage the participants (editors, researchers, Master and PhD students, supervisors) to discuss and reflect on the prevalence and underlying causes behind authorship disagreements and unethical practices in collaborative research teams, as well as strategies to best handle and/or solve them, based on both their experiences and also referring to relevant literature (Faulkes, 2018; Smith et al., 2020b). The practices and experiences of the leaders of the ENAI projects and working groups (WG) will also be collected before the workshop by inviting them to fill in a short survey sharing their approaches to authorship attribution and how they handle possible disagreements, and then analyzed and discussed with participants.

The workshop session will be conducted as follows:

1) at the beginning of the session, the participants will be prompted to individually complete a short multiple-choice questionnaire from Schroter et al. (2020) on their knowledge, perceptions and practices regarding ethics in research authorship;

2) in small groups, or breakout rooms (online), with a moderator, the participants will be encouraged to share their practices and experiences and reflect on the results of the survey of the coordinators of the ENAI projects and working groups. To avoid the influence of supervisors/ managers affecting the contributions of their students/ team members, these participants will be grouped separately;

3) at the end, each group will share the main issues raised during their discussions, which will be complemented with take-home messages by the workshop authors.

The participants will be asked for their informed consent, and data collected during the group discussions and using the questionnaires will have the ethical approval of the ENAI Ethics Committee.

Overall, the activities developed during this workshop will offer a valuable opportunity for participants to share and reflect upon their views and practices regarding ethics in authorship and discuss strategies that can enhance responsible practices and avoid misconduct when working in multidisciplinary, cross-cultural research teams.

References:

Committee On Publication Ethics. (2000). The COPE report 1999. Guidelines On good publication practice. *Family Practice*, *17*(3), 218–221. https://doi.org/10.1093/fampra/17.3.218

Faulkes, Z. (2018). Resolving authorship disputes by mediation and arbitration. *Research Integrity and Peer Review*, *3*, 12. https://doi.org/10.1186/S41073-018-0057-Z

Hirsch, J. E. (2005). An index to quantify an individual's scientific research output.

Proceedings of the National Academy of Sciences of the United States of America, *102*(46), 16569–16572.

https://doi.org/10.1073/PNAS.0507655102

International Committee of Medical Journal Editors. (2021). *Recommendations for conduct, reporting, editing, and publication of scholarly work inmedical journals. Updated December 2021*. Available online:

http://www.icmje.org/icmje-recommendations.pdf

Papatheodorou, S. I., Trikalinos, T. A., & Ioannidis, J. P. A. (2008). Inflated numbers of authors over time have not been just due to increasing research complexity. *Journal of Clinical Epidemiology*, *61*(6), 546–551. https://doi.org/10.1016/J.JCLINEPI.2007.07.017

Schroter, S., Montagni, I., Loder, E., Eikermann, M., Schäffner, E., & Kurth, T. (2020). Awareness, usage and perceptions of authorship guidelines: an international survey of biomedical authors. *BMJ Open*, *10*(9), e036899. https://doi.org/10.1136/BMJOPEN-2020-036899

Smith, E., Williams-Jones, B., Master, Z., Larivière, V., Sugimoto, C. R., Paul-Hus, A., Shi, M., Diller, E., Caudle, K., & Resnik, D. B. (2020a). Researchers' Perceptions of Ethical Authorship Distribution in Collaborative Research Teams. *Science and Engineering Ethics*, *26*(4), 1995–2022. https://doi.org/10.1007/s11948-019-00113-3

Smith, E., Williams-Jones, B., Master, Z., Larivière, V., Sugimoto, C. R., Paul-Hus, A., Shi, M., & Resnik, D. B. (2020b). Misconduct and Misbehavior Related to Authorship Disagreements in Collaborative Science. *Science and Engineering Ethics*, *26*(4), 1967–1993. https://doi.org/10.1007/S11948-019-00112-4

Tauginienė, L., Gaižauskaitė, I., Glendinning, I., Kravjar, J., Ojsteršek, M., Ribeiro, L., Odiņeca, T., Marino, F., Cosentino, M., & Sivasubramaniam, S. (2018). Glossary for Academic Integrity. In ENAI Report 3G.

https://doi.org/10.13140/RG.2.2.34997.37608

Tscharntke, T., Hochberg, M. E., Rand, T. A., Resh, V. H., & Krauss, J. (2007). Author sequence and credit for contributions in multiauthored publications. *PLoS Biology*, *5*(1), e18. https://doi.org/10.1371/JOURNAL.PBIO.0050018

DEVELOPING RESOURCES FOR SUPPORTING ETHICAL PUBLISHING AND DISSEMINATION ACTIVITIES

Irene Glendinning[1],Shivadas Sivasubramaniam[2], Muaawia Ahmed Hamza[3], Salim Razi[4], Seyyed Miri[5] & Sonja Bjelobaba[6]
[1]Coventry University, UK
[2]University of Derby, UK
[3]Research Center, Riyadh 2nd Health cluster, Riyadh, Saudi Arabia;
[4] Canakkale Onsekiz Mart University, Turkey
[5] Brieflands, Netherlands
[6]Uppsala University, Sweden.

Background

Members of the European Network for Academic Integrity's (ENAI) Ethical Publishing and Dissemination (EPAD, n.d.) working group have been developing guidance for use by early career researchers and others. The materials cover two different topics: responsibilities of different stakeholders in managing submissions of academic manuscripts for publishing and conference presentations and a checklist of characteristics that distinguish between reputable and disreputable journals and publishers. The motivations behind the development, the methods used and nature of each of these two resources will now be discussed in turn.

Guidance notes on roles and responsibilities in publishing and dissemination

EPAD working group members bring a range of experiences of writing and submitting manuscripts, taking part in peer review for conferences, journal publications and books and being members of various scientific and editorial boards. Discussions about different experiences led to the realisation that, although guidance exists in different forms, we found no guidance covering all the different roles that is synchronised to provide a comprehensive complementary set. Therefore, we set out to fill that gap.

Peer review is central to quality control of academic publishing. This is a trust-based process, normally conducted by volunteer academics, which has recently been the subject of systemic corruption by players not interested in quality (Fenske, 2021), who only care about their own advancement and enrichment. It is important that everyone involved in the publication process remains aware of these threats and takes appropriate actions to counter them.

The guidance notes on roles and responsibilities of the actors involved in publishing and dissemination were constructed by drawing on a range of reliable sources of guidance, which are all duly acknowledged. Some information came from different publishing companies' own guidance documents for their peer reviewers, editors, editorial boards and authors (Nature Editorial, 2022; Taylor and Francis, n.d.; Open Access Academic, n.d.). The team also referred to other sources, such as guidance by the Committee on Publication Ethics (COPE, n.d.) and institutional guidance (Eaton, 2018). Information from these sources was combined with ideas based on the experience of EPAD working group members, who have experience of these roles in different contexts.

The draft guidance is written in a generalised format to allow it to be adapted for specific use, for example, by conference organisers and editorial teams planning an academic publication. ENAI has already made use of an early draft of the notes for peer reviewers and authors for use in this conference. The guidance notes will also be useful for establishing the expectations of PhD students, early career researchers and supporting them and other people taking on roles for the first time as authors, peer reviewers and members of editorial and scientific review teams.

Checklist on identifying disreputable publishers and journals

There are many checklists on disreputable, poor quality and predatory publishing (COPE, 2020; Eaton, 2018). There are also many white-

lists (for example: Clarivate, n.d.; Cabells, n.d.) and blacklists (for example: Beall's List, n.d; Cabells, n.d.). Another useful site for helping to determine whether a journal or publisher is reputable is Scimago (n.d.). However, the list of disreputable and potentially predatory publishers and journals continues to increase. The increase in supply will continue in line with demand for these services from different parts of the world (Glendinning & Eaton, 2023), until something changes.

Fake "academic conferences", typically held in some exotic location (Godskesen et al., 2022), are another trap that can attract unsuspecting ECRs, but these can also be a draw for experienced academics who understand exactly what is on offer, but still take advantage of these opportunities as an easy way to boost their publication counts (Gillis, 2018). It is clear from this evidence that these services would not exist or continue to proliferate unless there was a strong demand. Although we can't stop them operating, raising awareness of the dangers of using poor quality publishing and dissemination will help, to some extent, to stem the demand for such services.

Other threats come from hijacked journals, paper mills and those offering co-authorship for sale (Abalkina, 2021). ECRs are potentially at risk from unreasonable demands from unscrupulous supervisors and colleagues, therefore an understanding of international norms will equip them to defend their rights and exercise their responsibilities as an author when they publish their own research (Glendinning et al., 2022; Wouters et al., 2019). The guidance will also allow them to make informed decisions on where and how to publish (Abbot, 2017; ThinkCheckSubmit.org, n.d.).

One of the objectives of EPAD is to raise awareness about disreputable and potentially predatory journals and publishers. As the working group provides a hub for people interested in this topic, the members agreed that it made sense to explore and bring together all existing checklists and guidance on identifying disreputable journals and conferences, with all sources duly acknowledged. It is anticipated that the EPAD checklist will be valued for supporting and guiding anyone interested in this topic and engaging in the activities on which EPAD is focused.

Plans for the workshop at Derby

In this workshop we will present all the draft guidance notes and the checklist. Participants will be asked to provide feedback, and also to apply and test these new resources using suitable examples, to help to validate and improve their utility, completeness, clarity and relevance.

The workshop is aimed at any participants who are interested in finding out more about and contributing their own knowledge on both positive and negative aspects of academic publishing and dissemination.

References

Abalkina, A. (2021). Publication and collaboration anomalies in academic papers originating from a paper mill: evidence from a Russia-based paper mill. ArXiv. https://doi.org/10.48550/arxiv.2112.13322

Abbott, J. H. (2017). How to choose where to publish your work. Journal of Orthopaedic & Sports Physical Therapy, 47(1), 6-10. doi:10.2519/jospt.2017.0102

Beall's List (n.d.). Beall's list of Predatory Journals and publishers. https://beallslist.net/

Cabells (n.d.). Cabells Scholarly Analytics. https://www2.cabells.com/about-predatory

Clarivate (n.d.). Web of Science. https://clarivate.com/webofsciencegroup/solutions/web-of-science/

COPE (n/d). Publication Guidelines. Committee on Publication Ethics. https://publicationethics.org/guidance/Guidelines

COPE (2020). Discussion document: Predatory Publishing. https://publicationethics.org/guidance/Guidel

ines?t=COPE+%282020%29.+Discussion+document%3A+Predatory+Publishing.+&sort=score

Eaton, S. E. (2018). Avoiding predatory journals and questionable conferences: a resource guide. University of Calgary. http://hdl.handle.net/1880/106227

EPAD (n.d.). Ethical Publishing and Dissemination Working Group: https://www.academicintegrity.eu/wp/ethical-publishing-and-dissemination-working-group/

Fenske, J. (2021). Unreliable science in media as peer-review breaks down. The Click 30/12/2021. https://theclick.news/unreliable-science-in-media/

Gillis, A. (2018) Poor-Quality, Predatory conferences prey on academics. UA/AU 5th March 2018. https://www.universityaffairs.ca/news/news-article/poor-quality-predatory-conferences-prey-academics/

Glendinning, I., Eaton, S.E., (2023). Understanding and addressing drivers of corruption in academic publishing. *Eaton, S.E, (Ed). Handbook of Academic Integrity, 2nd Edition*, Springer, Forthcoming.

Glendinning, I., Ribiero, L., Sivasubramaniam, S., Ahmed, M. A, Gholami, G., Marar, S.D. (2022). Educating early career researchers on publishing options. IRAFPA, 2022, Coimbra, 18-19th June 2022. https://doi.org/10.56240/cmb9927. pp 299-309.

Grove, J. (2021). Hijacked Journals 'siphon millions of dollars' from research. Times Higher Education, 30th August 2021. Retrieved on April 20th 2021 from https://www.timeshighereducation.com/news/hijacked-journals-siphon-millions-dollars-research

Godskesen T, Eriksson S, Oermann MH, Gabrielsson S. (2022). Predatory conferences: a systematic scoping review. BMJ Open. 2022 Nov 30;12(11):e062425. doi: 10.1136/bmjopen-2022-062425. PMID: 36450423; PMCID: PMC9716922.

Nature Editorial (2022). Nature is trialling transparent peer review - the early results are encouraging. https://www.nature.com/articles/d41586-022-00493-w

Open Access Academy (n.d.). Types of open access. Available at: http://www.oaacademy.org/types-of-open-access.html

Scimago (n.d.). SJR – Scimago Journal and Country Rank. https://www.scimagojr.com/

Taylor & Francis (n.d.). Guide to becoming a peer reviewer. https://editorresources.taylorandfrancis.com/reviewer-guidelines/

ThinkCheckSubmit.org. (n.d.). Choose the right journal for your research. Retrieved from http://thinkchecksubmit.org/

Wouters, P., Sugimoto, C.S., Larivière, V., McVeigh, M.E., Pulverer, B. de Rijcke, S., Waltman, L. (2019). Rethinking impact factors: better ways to judge a journal, Springer Nature Publishing AG. https://www.nature.com/articles/d41586-019-01643-3?WT.ec_i

A WORKSHOP TO MAPPING ACADEMIC INTEGRITY AS KEY COMPETENCE FOR UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Zeenath Reza Khan[1], Sarah E Eaton[2], Shiva Sivasubramaniam[3], Michael Draper[4],Rita Santos[5], Ajrina Hysaj[6], Salim Razi[7] , Belinda Gibbons[8], Melodena Stephens[9], Mohammed Bin Rashid[9], Sonja Bjelobaba[10] & Veena Mulani[11]

[1]University of Wollongong ,Dubai
[2]University of Calgary, Canada
[3]University of Derby, UK
[4] Swansea University, UK
[5]European Network for Academic Integrity, Portugal
[6]University of Wollongong Dubai
[7]Canakkale Onsekiz Mart University, Türkiye
[8]University of Wollongong Australia
[9] School of Government, Dubai
[10] Uppsala University, Sweden
[11]Al Diyafah High School,

Introduction

In this workshop participants will engage in an interactive discussion about the ways in which academic integrity can be mapped to the United Nations Sustainable Development Goals (SDGs) framework. Our multinational team will present preliminary findings from a collaborative project in which we have endeavoured to map academic integrity across all 17 SDGs. We are now able to share our preliminary work and seek feedback and input from the broader academic integrity community, which is the goal of our workshop. This funded project is a strategic partnership with University of Wollongong Global Campuses, European Network for Academic Integrity's member universities and Outreach Working Group, in various fields that range across sectors from Academic Integrity, Business, IT, Education and Governance, Humanities and Social Sciences. We invite participants to join us in thinking deeply and pragmatically about how academic integrity is informed by -- and contributes to -- the UN Sustainable Development Goals.

The UN SDGs are a blueprint to achieve a better and more sustainable future for all (UNDP, 2023). Interconnected and inclusive, the OECD are calling for a culture of integrity as essential to face the challenges the SDG framework presents (OECD, 2019). This call extends to academic integrity in the application of integrity values to all academic pursuits (UOT, 2023).

Preliminary Findings

Academic integrity is the bedrock of quality education, encompassing practices steeped in ethical values such as transparency, reliability, honesty, fairness, courage, respect, trust, and responsibility. According to the United Nations Sustainable Goal 4 (UN SDG 4), Quality Education aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UN, 2021, para. 1). However, students' exposure to, understanding of and experience with academic integrity values and practices can be diverse and divergent (Khan et al., 2022) which can create a barrier to what many consider as quality education that can lead to repercussions for the society.

While it becomes apparent that academic integrity is core to UN SDG 4, "Quality Education", in particular, SDG Target 4.3, 4.4. and 4.5 (UN, 2021), what is not apparent and not discussed in existing literature, is how academic integrity may be considered as a key competence for sustainable development that is essential to achieve the UN Agenda 2030 sustainability goals. Whether it is about the link between fairness and SDG 1, No Poverty; or the impact of trust to achieve SDG 16, Peace Justice, and Strong Institutions; or how essential responsibility is to realise SDG 12 Responsible Consumption and Production, fundamental academic integrity values are vital.

Method for an Evidence-Informed Workshop

Using the expert method that the team found to be most appropriate for education science studies (Bayona-Ore et al., 2018; Bogner et al., 2009; Cuhls, 2005; Cohen et al., 2007) on the rubric creation, mapping of academic integrity values (AIVs) to the SDGs and ultimately to collect and develop case studies as evidence of mapping, we aim to conduct a workshop with participants of the conference by presenting our findings of direct and indirect mapping across a rubric of mapping that the team has developed and tested. During the workshop, the team will summarise the methodology used throughout the project, the significant outcomes recorded and future plans.

For instance, originally, we proposed to look at mapping the known and widely accepted six fundamental values of academic integrity to the 17 UN SDGs. However, as part of the outcomes of the study, we were able to develop a comprehensive rubric for mapping that includes the following:

1. Ethical values relevant in the academia
2. Skills (eg. academic writing, acknowledgement, citations, paraphrasing, synthesising, reflecting)
3. Areas/Academic discipline/Roles (which stakeholders and areas of study)
4. Contexts (gender/geography/religion/culture/history)
5. Approaches (methods that help to uphold values, or teach skills)
6. Strategies (top down/governmental/regulatory/statutory)
7. Applications (practices that will help to achieve skills identified e.g. pedagogical considerations in teaching academic writing)

Following the identification and confirmation of the above rubric, we then developed the following questions to be asked for the rubrics:

- Question for 1, 2, 3 and 4 – What aspects of AI (1/2/3/4) contribute to working towards the targets within this goal?
- Question for 5, 6, 7 – How does this aspect of AI (5/6/7) contribute to working towards the targets within this goal?

For each of the 17 UN SDGs, the team then met over video conferencing tools to discuss the goals and their individual targets for each goal (total of 169). Each goal was labelled as direct or indirect mapping. As an example, the Goal 2 "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" was deemed to be an indirect mapping justified as follows:

In order to end hunger, improve food security and sustainable agriculture, there should be a focus on values of inclusivity, sharing, courage, respect, responsibility, and fairness in order to address them. However, we understand that there may be considerations of post-colonial and intersectional perspectives as an ethical issue. We foresee universities and schools playing greater roles in having these difficult conversations with students of all ages, to increase their awareness, and to provide modules in studies that clearly identify the values needed to make the decisions that help end hunger, protect intellectual property and food security and ultimately achieve sustainable agriculture.

Interactive Components of the Workshop

The team aims to present the summary of their findings to the participants attending the workshop in 15 minutes and then move on to the interactive component (the rest 30 minutes will be interactive discussions) using tools such as Padlet and Mentimeter, so participants can:

- Evaluate the finalised mapping of the direct and indirect mapping of academic integrity to the 17 UN SDGs,
- Provide critical feedback on the mapping outcome,
- Develop understanding of the importance of such a mapping exercise to take back teaching moments within their own classrooms or research areas.

After the workshop, participants will gain more knowledge on the connections

between academic integrity and sustainability goals.

References

Bayona-Ore, L., Zavala, R. F., & Cruz, M. L. (2018). Expert opinion process: applications in education. In Proceedings of the *10th International Conference on Education Technology and Computers* (ICETC '18). Association for Computing Machinery.

Bogner, A., Littig, B., & Menz W. (Eds.). (2009). *Interviewing experts: ECPR research methods.* Palgrave Macmillan.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). Routledge.

Cuhls, K. (2005). The Delphi method. In K. Cuhls (Ed.), *Delphi surveys: Teaching material for UNIDO foresight seminars* (pp. 93 – 112). United Nations Industrial Development Organization.

Khan, Z. R., Draper, M., Bjelobaba, S., Razı, S., & Sivasubramaniam, S. (2022, May 4 – 6). *Academic integrity outreach efforts - making ducation accessible and inclusive* [Workshop session]. 8th European Conference on Academic Integrity and Plagiarism, Portugal. https://academicintegrity.eu/conference/wp-content/files/2022/Book_of_Abstracts_2022.pdf

OECD. (2019). *Governance as an SDG accelerator: Country experiences and tools.* OECD Publishing. https://doi.org/10.1787/0666b085-en

UN. (2021). *Goal 4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.* Department of Economic and Social Affairs, Sustainable Development. https://sdgs.un.org/goals/goal4

UNDP. (2023). *SDG accelerator.* https://www.undp.org/sdg-accelerator/business-and-sdgs

(UOT) University of Toronto. (2023). What is academic integrity. https://studentlife.utoronto.ca/task/what-is-academic-integrity/

Three levels of Prevention: Using the Healthcare Framework of Prevention to Foster Integrity and Prevent Academic Misconduct in the Classroom

Jessica Kalra

University of British Columbia, Canada

Background

The concept of integrity is dynamic in that it may have nuanced definitions from discipline to discipline and more importantly these definitions can change over time. As the landscape of technology and information evolves, so do the behaviours that constitute misconduct. For example, with the recent introduction and open availability of text generating tools such as chatGPT and its predecessors, the discourse around integrity in academic writing has taken on a fever pitch and educators are very quickly making changes to assessments to mitigate the risks for academic misconduct associated with this specific tool. It can be argued that this type of disruption is not unusual. Consider the academic integrity challenges experienced with the pivot to online learning during the pandemic, or the conversations around use of spell check and autocorrect when word processing tools levelled up, and with the advent of the smartphone and predictive text. Educators have been managing these upheavals, in some cases multiple times during their careers and with limited resources and support.

One approach to handling these disruptions better is to support a culture shift from fixed definitions of academic integrity and perceptions of integrity behaviours, to evolving definitions that consider unpredictable technical, social and cultural nuances. This shift frames academic integrity as a skill that needs teaching, modelling and practice. Acting with integrity, therefore, becomes a process and a goal, one that is capable of adapting as the landscape of education changes. In this way, educators avoid disaster management or just in time approaches that deal with misconduct as it arises, and instead move towards prevention of misconduct behaviours in more general terms.

In this practitioner focused workshop, strategies for fostering integrity and mitigating contraventions of academic integrity standards are discussed through the adoption of a healthcare framework of prevention. The healthcare framework considers improving quality of life and reducing prevalence and incidence of illness from three levels: 1. Primary prevention, which focuses on education and how effective communication and teaching can play a role in preventing a condition from developing. Counselling to change behaviours and prophylactic measures are types of primary prevention; 2. Secondary prevention, which identifies risk factors and early diagnostic and screening programs to reduce the possibility of developing serious conditions, or identifying disease and treating before symptoms are present thereby minimizing serious consequences; and 3. Tertiary prevention, which involves treatment and management to prevent complications, followed by rehabilitation to restore health and quality of life (Kisling, 2022). This framework provides the foundations for a practical approach that educators can use to prevent academic misconduct in the classroom setting. In translating this framework for use in curriculum and assessment design, **primary prevention** is considered an instructive process where educators explicitly define what it means to act with integrity in their discipline, in their course, and/or for each specific assessment, providing students the space to practice this skill. This is a method of fostering a life-long culture of integrity in

learners. **Secondary prevention** focuses on identifying challenges that students may face which may put them at risk for misconduct behaviours and subsequently designing assessments that engage students and

teaches them how to avoid such challenges. Instructors are encouraged to critically examine the what, how and why of each assessment, and to share this information with learners in order to engage them in their learning experience, providing students with tools to complete assessments autonomously and successfully. Finally, **tertiary prevention** is for those students that have found themselves in situations where they have not met academic expectations, in which case, tertiary prevention would involve addressing the misconduct behaviour with appropriate management and implementing restorative practices to reduce recidivism.

In 2018, an open access toolkit for educators called "Encouraging Academic Integrity Through Intentional Assessment Design" (Anwar & Kalral., 2018.) was created. This toolkit was developed to provide instructors with resources to reframe the conversations around what academic integrity and the expression of integrity means as well as strategies for fostering integrity and preventing misconduct through intentional assessment design. The focus of this workshop is to expand on the strategies presented in this guide. Participants will be invited to have an interactive discussion around the topic of prevention. The preventative framework will be presented and elaborated upon, focusing on primary and secondary prevention as measures that can be implemented by educators at the classroom level. Examples of how to foster integrity, engage students and design robust assessments that limit misconduct behaviours will be described and discussed. Pedagogical tools such as Universal Design for Learning (UDL) (Bracken & Novak, 2019; Gordon & Rose, 2016; Hall et al., 2012) and Outcomes-Based Teaching and Learning (OBTL) (Biggs et al., 2022; Rubio, 2017) will be presented as practical supports for intentional assessment design. Participants will apply these methods and strategies to their own teaching contexts.

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

- describe how the three levels of prevention can be used to foster integrity and reduce the incidence and prevalence of misconduct.
- discuss the use of UDL and OBTL in primary and secondary prevention.
- create curriculum and (re)design assessments that encourage integrity behaviours and prevent contraventions of academic integrity standards.

References

Anwar, R., Kalra, J., Ross, M., Smith, D., & Vogel, V. (n.d.). *Encouraging Academic Integrity Through Intentional Assessment Design*.

Biggs, J., Tang, C., & Kennedy, G. (2022). *Teaching for Quality Learning at University 5e*. Open University Press.

Bracken, S., & Novak, K. (2019). *Transforming Higher Education Through Universal Design for Learning: An International Perspective*. Routledge.

Gordon, D., & Rose, D. H. (2016). *Universal Design for Learning: Theory and Practice*.

Hall, T. E., Meyer, A., & Rose, D. H. (2012). *Universal Design for Learning in the Classroom: Practical Applications*. Guilford Press.

Rubio, A. M. D. (2017). Wiggins, G., & McTighe, J. (2005) Understanding by design (2nd ed.).

Alexandria, VA: Association for Supervision and Curriculum Development ASCD. In *Colombian Applied Linguistics Journal* (Vol. 19, Issue 1, p. 140).

https://doi.org/10.14483/calj.v19n1.11490

Kisling LA, M Das J. Prevention Strategies. [Updated 2022 May 8]. In: StatPearls [Internet].
Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK537222/

Other resources

Bates, Simon (2017) "Faculty and students as collaborators, co-creators, and makers," Discussions on University Science Teaching: Proceedings of the Western Conference on Science Education: Vol. 1 : Iss. 1 , Article 4. Available at: https://ir.lib.uwo.ca/wcsedust/vol1/iss1/4

Bens, Susan. (2022) "Helping Students Resolve the Ambiguous Expectations of Academic Integrity." In Academic Integrity in Canada: An Enduring and Essential Challenge, edited by Sarah Eaton and Julia Christensen Hughes. (Cham, Switzerland: Springer). 377-392.

Bertram Gallant, Tricia. (2008). Academic Integrity in the twenty-first century: A teaching and learning imperative. ASHE Higher Education Report, 33,5. https://doi.org/10.1002/aehe.3305.

Bretag, Tracey. (2019). "Academic integrity and embracing diversity." Paper presented at the Canadian Symposium on Academic Integrity, Calgary, Canada. http://hdl.handle.net/1880/110278

Eaton, S. E. (2021). "Academic Integrity for Teaching and Learning: Insights for Ethical Practice." Keynote, UBC Academic Integrity Week. University of British Columbia, Oct 19, 2021.

Eaton, Sarah and Julia Christensen Hughes, eds. 2022. Academic Integrity in Canada: An Enduring and Essential Challenge. Springer. Open access (link takes you whole book): https://link.springer.com/content/pdf/10.1007%2F978-3-030-83255-1.pdf

Eaton, Sarah and Rachael Edino. (2018) Strengthening the research agenda of educational integrity in Canada: a review of the research literature and call to action. International Journal for Educational Integrity 14:5, 1-21. https://doi.org/10.1007/s40979-018-0028-7

International Center for Academic Integrity (2014). The Fundamental Values of Academic Integrity second edition. Clemson University.

Lang, James. (2016) Small Teaching: Everyday Lessons from the Science of Learning. San Francisco, CA: Jossey-Bass/Wiley.

Managing Risk for different assessment types, contract cheating and assessment design, www.cheatingandassessment.edu.au, Australian Government Department of Education and Training, 2018

McNeill, Laurie. "Changing "Hearts" and Minds: Pedagogical and Institutional Practices to Foster Academic Integrity." Academic Integrity in Canada: An Enduring and Essential Challenge, edited by Sarah Eaton and Julia Christensen Hughes, 487-503. Springer, 2022. https://link.springer.com/content/pdf/10.1007%2F978-3-030-83255-1.pdf

Newton, P. (2015). "Academic integrity: A quantitative study of confidence and understanding in students at the start of their higher education." Assessment & Evaluation in Higher Education, 41(3), 482–497. https://doi.org/10.1080/02602938.2015.1024199

Penaluna, Lee-Ann and Roxanne Ross. (2022) "How to Talk About Academic Integrity so Students Will Listen: Addressing Ethical Decision-Making Using Scenarios." In Academic Integrity in Canada: An Enduring and Essential Challenge, edited by Sarah Eaton and Julia Christensen Hughes. (Cham, Switzerland: Springer). 393-410.

Peters, M., & Cadieux, A. (2019). "Are Canadian professors teaching the skills and knowledge students need to prevent

plagiarism?" International Journal for Educational Integrity, 15(1). https://doi.org/10.1007/s40979-019-0047-z

Tobin, T. J., & Behling, K. T. (2018). Reach Everyone, Teach Everyone: Universal Design for Learning in Higher Education. Teaching and Learning in Higher Education.

Whitley, B. E., Jr., Keith-Spiegel, P., & Voran Distinguished Professor of Social and Behavioral Sciences Director Center for the Teaching of Integrity Patricia Keith-Spiegel. (2001).
Academic Dishonesty: An Educator's Guide. Psychology Press.

ADDRESSING CONFLICT OF INTEREST IN RESEARCH, BUSINESS, AND SOCIETY COLLABORATION

Julija Umbrasaitė & Birutė Liekė

Office of the controller of Academic Ethics and procedures, Republic of Lithuania

As research collaboration increasingly transcends the boundaries of universities and research centres, researchers must develop ethical research skills that enable them to manage such collaborations properly. The collaborative research projects might involve civil society, R&D enterprises, and other stakeholders, who might have diverse aims, level of training, expectations about project results and ethical research conduct (Albert et al., 2021; Godecharle et al., 2018; Hillerbrand & Werker, 2019; Shamoo & Resnik, 2022; Ursić et al., 2022), which in turn may raise specific legal and ethical issues. For example, ethical challenges in citizen science may include exploitation and instrumentalisation of citizen scientists, research malpractices, disputes over ownership and acknowledgement, to mention a few (Tauginienė et al., 2021). University ties with industry, especially those that entail financial dealings, might be considered as a potential source of conflict of interest that may lead to bias in research (Krimsky, 2013; Lundh et al., 2017; Resnik & Shamoo, 2002).

As the collaboration between the research, business and society evolves, institutions and supervisors might need to revise educational resources and broaden the scope of ethical research training. Taking this into account, we have developed two guidelines on how to conduct research in accordance with principles of research ethics and research integrity in citizen science and research-business collaboration projects. The guidelines are designed for master and doctoral students and their supervisors. To engage stakeholders and enhance acquisition of transferable competences both guidelines are supplemented with gamified cases.

Efficiency of training in research integrity to some extent relies on the appropriate training strategies (e.g., Mumford, 2017). To accommodate this observation, we used gamification approach to develop educational material that supplement the guidelines. To develop transferable competences, we designed gamified cases following the four-step scheme by Fisher & Barabasch (2020). Two types of gamified cases, i.e., vignettes and scenarios, were designed to enable development of basic and advanced knowledge, respectively. The vignettes were designed as short stories that address specific topic of the guidelines (Ozolinčiūtė, 2022). The vignettes should facilitate the development of basic knowledge, e.g., the ability to understand and explain basic ethical issues, the ability to identify ethical issues in a specific mainstream citizen science project (Ozolinčiūtė, 2022). It also encompasses scores that allow for measurement of the competence level. The scenarios were developed following the scenario-based learning approach. Meanwhile, as suggested by Errington (2011), scenario-based learning allows close-to-real-world learning experience. The key elements of such learning approach are the choice of options and the deliberation on the possible implications of such choice. Hence, we developed the scenarios to facilitate development of advanced knowledge, e.g., to identify ethical challenges, to make substantiated decision, to assess its implications.

In this workshop, we aim to introduce the guidelines on research ethics and research integrity in citizen science and research-business collaboration and to discuss how the guidelines and gamified cases can be used across different study/research fields, study cycles, and contexts. In the hands-on session we will introduce a topic-specific vignette and a topic-specific scenario, namely a case of conflict of interest. Here, a conflict of interest is defined as suggested in the Glossary for Academic Integrity (Tauginienė et al., 2018, p. 14): “Potential to compromise judgement or objectivity caused by financial or personal

obligations or other considerations" (InterAcademy Partnership, 2016).

We will facilitate a discussion among the workshop participants in following aspects: relevance of the gamification method; acquisition of anticipated level of competences; complementarity of the story to the guidelines; multi-applicability of the guidelines and gamified cases.
Group work approach will be employed during the workshop. The group discussion will be guided by a pre-designed, semi-structured open-ended questions. The facilitators will moderate group interactions by asking the questions and will wrap-up the discussion. As a result of the workshop, the participants of the workshop will learn about the methodological approach to the development of educational material and will familiarise themselves with the tools available for the training in research ethics and research integrity in citizen science and research-business collaboration projects as well as its application possibilities. All conference attendees, particularly senior and junior researchers as well as students, are invited to take part in the workshop.

The guidelines and gamified cases were developed as the output of Erasmus+ project *Bridging Integrity in Higher Education, Business, and Society* (BRIDGE, 2020-1-SE01-KA203-077973).

References

Albert, A., Balázs, B., Butkevičienė, E., Mayer, K., & Perelló, J. (2021). Citizen Social Science: New and Established Approaches to Participation in Social Research. In K. Vohland et al. (eds.), *The Science of Citizen Science* (pp. 119–138). https://doi.org/10.1007/978-3-030-58278-4_7.

Errington, E. P. (2011). Mission possible: using near-world scenarios to prepare graduates for the professions. *International Journal of Teaching and Learning in Higher Education, 23*: 84–91. https://researchonline.jcu.edu.au/18139/.

Fischer, S., & Barabasch, A. (2020). Gamification: A Novel Didactical Approach for 21st Century Learning. In E. Wuttke, J. Seifried, & H. Niegemann (Eds.), *Vocational Education and Training in the Age of Digitization: Challenges and Opportunities* (1st ed., pp. 89–106). Verlag Barbara Budrich. https://doi.org/10.2307/j.ctv18dvv1c.8.

Godecharle, S., Nemery, B., & Dierickx, K. (2018). Differing perceptions concerning research integrity between universities and industry: A qualitative study. *Science and Engineering Ethics, 24*: 1421–1436. https://doi.org/10.1007/s11948-017-9965-4.

Hillerbrand, R., & Werker, C. (2019). Values in University–Industry Collaborations: The Case of Academics Working at Universities of Technology. *Science and Engineering Ethics, 25*(6): 1633-1656. https://doi.org/10.1007/s11948-019-00144-w.

InterAcademy Partnership (2016). Doing global science: a guide to responsible conduct in the global research enterprise. Princeton University Press. http://interacademycouncil.com/File.aspx?id=29431.

Krimsky, S. (2013). Do Financial Conflicts of Interest Bias Research?: An Inquiry into the "Funding Effect" Hypothesis. *Science, Technology, & Human Values, 38*(4): 566–587. https://doi.org/10.1177/0162243912456271.

Lundh A., Lexchin J., Mintzes B., Schroll J. B., & Bero L. (2017). Industry sponsorship and research outcome. *Cochrane Database of Systematic Reviews, 2*: MR000033. https://doi.org/10.1002/14651858.MR000033.pub3.

Mumford, M. D. (2017). Assessing the Effectiveness of Responsible Conduct of Research Training: Key Findings and Viable Procedures. In National Academies of Sciences, Engineering, and Medicine, *Fostering Integrity in Research*. Washington, DC: The National Academies Press. https://doi.org/10.17226/21896.

Ozolinčiūtė, E. (2022). O4b: Design of Educational Material Including Gamified Cases. BRIDGE project, output 4 report.

Resnik, D., B., & Shamoo, A. E. (2002). Conflict of Interest and the University. *Accountability in Research, 9*(1): 45-64. https://doi.org/10.1080/08989620210356.

Shamoo, A. E., & Resnik, D. B. (2022). Collaboration within Academia and with Industry. *Responsible Conduct of Research*, 4th ed. (New York, 2022; online ed., Oxford Academic, 19 May 2022). https://doi.org/10.1093/oso/9780197547090.003.0004.

Tauginienė, L., Gaižauskaitė, I., Glendinning, I., Kravjar, J., Ojsteršek, M., Ribeiro, L., Odiņeca, T., Marino, F., Cosentino, M., Sivasubramaniam, S. (2018). Glossary for Academic Integrity. ENAI Report 3G [online].

Tauginienė, L., Hummer, P., Albert, A., Cigarini, A., & Vohland, K. (2021). Ethical Challenges and Dynamic Informed Consent. In K. Vohland et al. (eds.), *The Science of Citizen Science* (pp. 397–416). https://doi.org/10.1007/978-3-030-58278-4_20.

Ursić, L., Baldacchino, G., Bašić, Ž., Sainz, A. B., Buljan, I., Hampel, M., Kružić, I., Majić, M., Marušić, A., Thetiot, F., Tokalić, R., & Markić, L. V. (2022). Factors Influencing Interdisciplinary Research and Industry-Academia Collaborations at Six European Universities: A Qualitative Study. *Sustainability, 14*(15):9306. https://doi.org/10.3390/su14159306.

ACADEMICS AND AI INITIATIVES

Lorna Waddington & Caroline Campbell

University of Leeds, UK

An analysis of a staff survey on academic integrity (AI) run in 2021-22 allowed us to identify the state of play at our institution. This was developed as part of our Leeds Institute for Teaching Excellence (LITE) Fellowship on Academic Integrity Strategies which takes a positive, preventative approach to this complex area (Harper et al, 2019; Eaton, 2021). The survey focused on obtaining staff perceptions of students' understanding of academic integrity (Gullifer and Tyson, 2014), understanding current practice in their teaching as regards providing guidance to students on AI, and identifying staff training needs. The move to online assessment in response to the pandemic, for example, highlighted a concern about their understanding of software, such as Turnitin, and how to follow up suspicions around malpractice. This has informed the planning for a programme of staff training ranging from recommended workshops to compulsory online training.

The staff survey was the first of its kind at our institution and the responses enabled us to obtain insights into current practice from each faculty. It asked whether sufficient training and guidance was available to staff to ensure they are able to guide their students in terms of good practice. It sought to gauge how confident staff feel about identifying academic malpractice, including contract cheating. We will share staff perceptions of the disincentives in reporting plagiarism. We also invited suggestions for how to encourage and further promote a culture of academic integrity at the University (Curtis et al, 2021).

We compared the responses with those from two student surveys (2021 & 2022) and this highlighted differences in perception between the guidance the teaching staff thought they were offering and the students' perceptions of that guidance. For example, the student responses highlighted a gap in being informed about academic integrity issues, including contract cheating, in terms of their modules, their discipline(s) and the institutional expectations. Over half of respondents said they would ask their Academic Personal Tutor first if they had questions about AI but this is not usually one of the areas discussed in personal tutorials. However, both student and staff responses identified some commonality between what students would like and what staff think is useful. Our presentation will highlight the need for all teaching staff, regardless of discipline, to provide an opportunity for dialogue with their students. It will discuss the institutional need to clarify whose responsibility it is to provide students with guidance and formative practice in academic integrity.

The survey also explored academic staff concerns around identifying academic malpractice. It is important to understand staff perspectives. We will share key insights which are informing three main outcomes: a staff training programme, resources to better support staff, and an institutional approach.

We argue that it is everyone's responsibility to help students develop an understanding of academic integrity, and to develop the relevant skills in their discipline. With this in mind, it is important that all staff who teach and/or provide AI training to students are provided with the same foundational training in AI matters, and receive regular updates regarding emerging trends in AI issues. Ultimately, this should ensure a shared understanding and deliver a more consistent AI experience for all

students. As part of our research project (and following on from the findings of the first survey) we have created a template for a staff training programme to cover all members of staff who work in AI matters. This programme will be supported by regular workshops for the AI leads to disseminate information about current trends etc. The idea is that the training is ongoing and dynamic. This is currently being discussed at University level and will be revised accordingly. We feel that it would be beneficial to share these proposals and it would be of benefit to us to listen to delegates' views.

We plan to run a second staff survey after the Easter break. This is essentially the same survey as our 2021-22 survey but with some significant differences. We have identified several areas requiring a more in-depth analysis and we have added some new questions specifically relating to ChatGPT. These insights will further inform our final recommendations to the University of Leeds.

References

Curtis, G., Slade, C., Bretag, T. and McNeil, M. 2021. Developing and evaluating nationwide expert-delivered academic integrity workshops for the higher education sector in Australia. *Higher Education Research & Development* **41**(3), pp. 665-680

Harper, R., Bretag, T., Ellis, C., Newton, P., Rozenberg, P., Saddiqui, S. & van Haeringen, K. 2019. Contract cheating: a survey of Australian university staff, *Studies in Higher Education* 44:11, 1857-1873

Eaton, S. 2021. *Plagiarism in Higher Education: Tackling Tough Topics in Academic Integrity* ABC-CLIO, LLC

Gullifer, J. M. and Tyson, G. A. 2014 Who has read the policy on plagiarism? Unpacking students' understanding of plagiarism. *Studies in Higher Education,* **39**(7), pp. 1202-1218

LSEAIN-CCWG, 2021. Contract cheating detection for markers: checklist'

EXPLORING THE RELATIONSHIP BETWEEN QUALITY ASSURANCE AND DYNAMIC (SELF-) REGULATION: A PARTNERSHIP APPROACH TO REGULATION AND ENHANCEMENT OF ACADEMIC INTEGRITY IN IRELAND

Mairéad Boland & Sue Hackett

Quality & Qualifications Ireland

The dilemma: the challenge of fostering academic integrity within and across autonomous higher education institutions (HEIs) enabling both understanding and common ownership of the issues and assurance of regulatory requirements being met.

How can national initiatives manage this in a way which is both rigorous, improvement-oriented and allows for institutions to individualise their approaches in accordance with their status as autonomous entities?

This workshop is designed to present the Irish approach to developing a combined peer-driven regulatory and enhancement model to combat threats to one of our most important fundamental values – **academic integrity** – at mega (international), macro (national), and meso (institutional) and micro (disciplinary) levels.

The workshop will first consider the national conceptual level (section 1), moving to an operational focus (section 2), and will conclude with a hands-on application of the model to contexts specific to the participants (section 3).

Section 1: The first part of the workshop will focus on a description and demonstration of the collaborative partnership model that has been developed and implemented in Ireland to enable cultures of academic integrity to further flourish and become embedded at national, institutional and disciplinary levels.

The model is built upon two intersecting strands (regulation and enhancement) and involves as a key enabler the national QA agency and qualifications authority, Quality and Qualifications Ireland (QQI), as a regulator of academic integrity; and as a provider of enhancement opportunities, through management of the National Academic Integrity Network (NAIN), which comprises membership from higher education institutions and other national stakeholders. This network provides a complementary, enhancement-led, 'soft'-regulatory scaffolding.

The workshop will also discuss the Global Academic Integrity Network (GAIN), a platform for international regulatory bodies to discuss and exchange approaches to combating contract cheating and other forms of academic fraud and which is now beginning to encourage peer-learning and exchange at a fourth, mega (international) level...

This model aims to ensure that all relevant stakeholders are in compliance with the relevant regulatory requirements and that approaches taken at all levels are fit for purpose in providing both effective regulation and scope for ongoing development and improvement, fit for each meso (institutional) context.

The model is non-hierarchical and promotes development through partnership, collaboration, an ethos of collegiality and appreciation of common overall purposes. The synergistic benefits of active partnership are demonstrated through the targeted agreed objectives of the partners, across both the network and its working groups as well as an appreciation of the complementarity between 'hard' and 'soft' regulation – the inherent interplay between the two aspects enabling innovation and creativity, whilst ensuring a robust approach that encourages adherence to regulatory requirements.

GAIN and NAIN, will be described, with a focus on their core, discrete – but inter-related – remits. The model has been adapted from another designed for a social work context Constellation Model Description June 9'06.PDF (socialinnovation.org)

Within the national model, whilst there is no formalised hierarchy or dominant group, there are various sub-groups of the network, which work on specified objectives with oversight provided through a nominated steering group comprising network members. The network is enabled to operate on the basis of a stable foundation provided by the host agency (QQI) which has a remit to ensure quality and regulatory adherence. The agency's management of the network also provides the material resources needed to sustain the model and provide the means for development and evolution.

The workshop leaders will provide evidence that demonstrates how this multi-dimensional model has been implemented, highlighting the synergistic benefits of partnership among all stakeholders, to the benefit of learners and, ultimately, the integrity of national awards and qualifications from both national and international perspectives. Some indicators of impact to date will be described.

Key overarching messages include:

- the importance of establishing a base of mutual trust, ethicality and collegiality;
- the need for a stable environment in which growth and diversity can happen safely without causing unforeseen disruption;
- recognition of common imperatives and individual differences leading to the peer creation and sustainment of common conceptual principles;
- the importance of equitable and equal involvement of all key stakeholder groups;
- the importance of effective, multi-channel communications and creation of an environment for positive impact.

Section 2: Lessons learnt to date will be shared with participants including what has worked well and should be retained in terms of operationalising the model; what could have been more effective and why; what pitfalls have arisen and how, with foresight, these could be avoided.

Section 3: Participants will be invited to consider and engage with a chosen scenario, accompanied by a number of targeted questions, to apply the model within their own context. The scenarios will then be discussed in the context of the model to highlight the advantages and ways in which such an approach may help to foster innovation, ensure common understanding and adherence to regulatory requirements and enable development and capacity building.

Key participant learning outcomes are intended to be the following:

- Capturing the added value of engaging in meaningful partnership with all relevant stakeholders, acknowledging the unique remits, responsibilities and operating contexts of all;
- Applying lessons learnt from the Irish context to participants' own (self-)regulatory contexts;
- Empowering stakeholders to interpret, apply and adapt common principles to their particular environments.

To enable all of the three sections of the workshop, the following activities will be carried out:

- Context-setting (work towards establishing a regulatory framework for academic integrity in Ireland)
- A brainstorming exercise in relation to key terminology (e.g. 'partnership', 'regulation')
- Groupwork activity (discussion of scenarios)
- Feedback session (discussion of scenario outcomes)
- Reflection on lessons learnt and what these may mean in the participant contexts.

Practical requirements (audio-visual requirements, room layout):

- Cabaret-style set-up of room (i.e. round tables with four seats at each table)
- Laptop (if possible), projector and screen and any necessary cables
- 3-4 whiteboards and whiteboard pens or 3-4 flipchart easels with paper and markers
- Several sets of large post-its and markers for each table

Please note, the organisers can arrange room set-up, computer and projector and if, required, flipchart paper and markers. Any

other material must be provided by the facilitators.

References

Surman, T (2006) *Constellation Collaboration A model for multi-organizational partnership*, Centre for Social Innovation [Constellation Model Description June 9'06.PDF (socialinnovation.org) accessed March 13 2023]

Enhancing academic practice in Higher Education – what's the right way to do it?

Debbie De
Aston University, UK

Academic offences relating to academic integrity, specifically plagiarism offences, are a concerning global issue (Liles, 2019; Mullholland, 2020) which have been exacerbated with the increase in online examinations (Noorbehbahnani et al., 2022; Yazici et al., 2023). Academic integrity is becoming increasingly complex for universities to manage with developments in Artificial Intelligence (AI) software such as ChatGPT and QuillBot and online plagiarism checkers (Guo et al., 2023; Krügel et al., 2023). Though varied, university approaches to academic misconduct, assessment design, teaching and supporting students to develop effective academic practices and ability to navigate assessment is critical (Carroll, 2002). In the current context, dynamism, flexibility, and authenticity across the academic community are required to ensure developmental teaching, learning and assessment for students to ensure the integrity of university qualifications.

Based in the superdiverse city of Birmingham (De, 2019), Aston University has a student population of over 11,000 students with a demographic reflective of ethnic diversity in the locality (Times Higher Education, 2023). The university is exemplary for its commitment and success in widening access, retention and employability (Aston University, 2020) and ability to support the diversity in educational capital across the institution. As part of Aston University's commitment to widening access to participation, the Learning Development Centre (LDC) was established in 2006. Through a learning development lens, which seeks to empower students to make sense of academic practices and develop academic confidence (ALDinHE, 2022), Aston's LDC supports the university's learning and teaching strategy and improves the student experience alongside student outcomes.

In collaboration with Aston's College of Business and Social Sciences (BSS), the LDC is carrying out a pedagogic project exploring taught postgraduate student expectations, needs and experiences relating to academic integrity. Of the four colleges at Aston, BSS has the highest number of students and the most diversity across its student population and programmes (Aston Law, Aston Business and Social Sciences). With a view to empowering students and increase student academic success, this study aims to better understand the challenges students and teaching staff encounter relating to academic integrity through a series of student focus groups, semi-structured interviews and online surveys. A series of teaching interventions including peer-peer academic support with Student Writing coaches and guidance on interpreting Turnitin reports will be implemented. Findings will be used to help the university equip students to navigate assessment criteria, develop their academic practice and reduce the number of academic offences across the university. Early findings indicate that outcomes of this project will include a series student co-created online study and continuing professional development (CPD) resources alongside a student-informed approach to learning and teaching activities.

This workshop is a space for those involved in the design and delivery of learning and teaching activities and resources which help students better understand academic integrity to share their experiences, concerns and best practices. There will be opportunities for participants to discuss discourses and practices relating to academic integrity, Turnitin and AI software including ChatGPT and QuillBot within their respective institutions and across the sector more generally. More specifically, the workshop will include series of scenario-based discussions and role plays to encourage participants to identify and discuss challenges

relating to academic integrity from the perspective of students, students providing peer-peer academic support and educationalists working directly with students in this area.

Points raised from this workshop may shape the next phase of this learning and teaching project, including resource design, CPT activities and future learning and teaching activities.

References

ALDinHE. (2022). *Association for Learning Development in Higher Education.* Available at: http://aldinhe.ac.uk/

Aston University (2020). *Aston University Access and Participation Plan 2020-2025.* Accessed from: https://www.aston.ac.uk/sites/default/files/astonuniversity-app-2020-2025.pdf

Carroll, J. (2002)*A handbook for deterring plagiarism in higher education.* Oxford: Oxford Centre for Staff Development

De, D. (2019). *Discourses on competition and international student diversity in Higher Education: a linguistic ethnography in a Midlands based university.* [Doctoral thesis]. University of Birmingham

Guo, B., Zhang, X., Wang, Z. Jiang, M. Nie, J., Ding, Y., Yue, J. and Wu, Y. (2023). *How close is ChatGPT to Human Experts? Comparison corpus, evaluation and detection* (Cornell University, Working Paper). Available at: https://arxiv.org/abs/2301.07597

Krügel, S., Ostermaier, A. and Uhl, M. (2023). *The moral authority of ChatGPT* (Cornell University Working Paper). Available at: https://arxiv.org/abs/2301.07098

Liles, L.A. (2019). Plagiarism in Higher Education. *Voices in Education,* (5) pp29-32.

Mullholland, M (2020). Honour and Shame: Plagiarism and Governing Student Morality. *Journal of College and Charter,* 21 (2), pp. 104-115.

Noorbehbahani, F., Mohammadi, A, and Aminazadeh, M. (2022). A systematic review of research on cheating in online exams from 2021 to 2021. *Education and Information Technologies,* (27), pp. 8413-8460.

Times Higher Education (2023). *About Aston University.* Available at: https://www.timeshighereducation.com/world-university-rankings/aston-university

Yazichi, S., Durak, H. Y., Dünya, B. A. and Sentürk, B. (2023). Online versus face-to-face cheating: The prevalence of cheating behaviours during the pandemic compared to the pre-pandemic among Turkish University students. *Journal of Computer Assisted Learning,* (39) pp. 231-254.

EVALUATING THE EFFICACY OF GAMIFIED TUTORIALS TO PROMOTE ACADEMIC INTEGRITY IN ONLINE EDUCATION

John Paul Foxe[1], Amy Lin[2], Naomi Go[2], Cedar Leithead[2], Allyson Miller[1], Shannon Nguyen[1] & Kasha Visutskie[1]

[1]Toronto Metropolitan University, Canada
[2]Seneca College, Ontario, Canada

The promotion of academic integrity through education and prevention remains a priority for Seneca College and Toronto Metropolitan University (TMU), both located in Toronto, Canada. Research has shown the effectiveness of online tutorials in the prevention of academic misconduct (Stoesz & Yudintseva, 2018). Similarly, research has shown the effectiveness of gamifying online tutorials in achieving the intended learning outcomes (Vandercruysse, et al., 2012).

In early 2020, TMU launched a series of three gamified modules to promote academic integrity, focusing on plagiarism, cheating and student collaboration/sharing work (Toronto Metropolitan University, n.d.). These modules were developed to be non-institution specific and the source code is available under a creative commons license (Creative Commons, n.d.).

The move to online education in March 2020 allowed higher education institutions across the world to continue teaching through the COVID19 pandemic. However, maintaining academic integrity standards in this medium became increasingly difficult as new threats to academic integrity emerged while existing threats became exacerbated (Eaton, 2020). As we emerge from the pandemic and higher education returns to in-person teaching, Seneca College and TMU recognize that online education is here to stay. As such, Seneca College and TMU coapplied for and were successful in obtaining a Virtual Learning Strategy (VLS) grant from eCampus Ontario (eCampus Ontario, n.d.). We have since developed and launched (in February 2023) three new gamified online modules that promote academic integrity in an online environment. These modules focus on communication and collaboration, research and evaluation of sources and stress management and decision making.

In this workshop, we will present these new online modules. Workshop participants will have the opportunity to play through the game. Presenters will demonstrate how these modules can be adapted to the workshop participants' home institutions.

In addition, we will present the results of a research study where we have evaluated the three modules from the students' perspective. Students in selected first year courses at the two institutions completed the three academic integrity gaming tutorials. Following this, the students participated in a survey to address the research questions:

1. How does the use of academic integrity gaming tutorials impact students' knowledge and understanding of academic integrity principles and values?
2. What are the most effective elements of the academic integrity gaming tutorial for promoting student understanding of academic integrity violations and decision making?

Both quantitative and qualitative analysis of the student responses from the surveys will inform the development team on best practices for creating future gaming tutorials and revisions on the current set.

References

Creative Commons. (n.d.). *About the Licenses*. https://creativecommons.org/licenses/

Eaton, S. E. (2020). Academic integrity during COVID-19: Reflections from the University of Calgary. *International Studies in Educational Administration*, 48(1), 2020. pp. 80-85.

eCampus Ontario. (n.d.). *Virtual Learning Strategy (VLS).* https://vls.ecampusontario.ca/vls-2

Stoesz, B.M., Yudintseva, A. (2018). Effectiveness of tutorials for promoting educational integrity: a synthesis paper. *International Journal of Academic Integrity,*

14(6). https://doi.org/10.1007/s40979-018-0030-0
Toronto Metropolitan University. (n.d.). *Academic Integrity in Space.* https://games.de.torontomu.ca/aio/#/

Vandercruysse, S., Vandewaetere, M., & Clarebout, G. (2012). Game based learning: A review on the effectiveness of educational games. In M. M. Cruz-Cunha (Eds.), *Handbook of Research on Serious Games as Educational, Business, and Research Tools*. Hershey, PA: IGI Global.628-647.

Poster Abstracts

FACULTY'S PERSPECTIVES ON ACADEMIC DISHONESTY: EVOLVING BELIEFS AND OPPORTUNITIES FOR LEARNING

Lydia Scholle-Cotton
Queen's University in Canada

Understanding faculty experiences with student academic dishonesty and how these experiences relate to their current attitudes, beliefs, and responses is important for higher education, where institutional reputation depends heavily on the ability of an institution to discourage dishonest behaviour. This study advances our understanding of faculty experiences, attitudes, and behaviour. Fully understanding the faculty experience in dealing with academic dishonesty may help guide college and university administration in building out appropriate support and assistance for both faculty and students, enabling effective responses by faculty when they face situations of academic dishonesty.

This study used semi-structured interviews administered to nine faculty members at two universities located in Ontario Canada. It assesses if faculty beliefs and attitudes change throughout their careers. A purposive sampling method was used and faculty were selected from education schools that teach graduate students. Both universities are ranked relatively high among Canadian institutions for undergraduate and graduate teaching and research. The academic policies at both universities vary depending on the faculty/school unit and in both institutions cases are to be brought to the administration by individual faculty members. The selection of faculty within these institutions was based on their stage in their academic career (years at the university as posted on their websites via their CVs) and gender to ensure diversity on these dimensions. Since the aim of the study focused on collecting data for thematic analysis, as Braun and Clarke (2013) indicate in their research, a smaller sample size (5-10 participants) with more homogeneity can help in identifying meaningful themes.

The interviews were conducted via live Zoom meetings and guided by a predeveloped survey. Each interview lasted 30 to 50 minutes. The survey instrument included demographic questions asked at the beginning and included 14 closed-ended questions and 1 open-ended question at the end of the interview. After each closed-ended question, participants were told that if they wished to qualify and/or expand on any answers, then it was okay to do so. The majority of questions used focused on faculty experiences dealing with academic dishonesty and included a wide range of academic dishonesty types (e.g., plagiarism, copying exam answers, copying another student's assignment, and use of unauthorized materials). Questions were developed after a review of the existing literature (Coalter & Wanorie, 2007; Naghdipour & Emeagwali, 2013; Anderman & Won, 2019) and prior to conducting the formal survey. Cognitive interviews were used to further refine questions and adjust as necessary for clarity. The majority of the responses given by subjects during the interviews concerned academic plagiarism. Due to the richness of explanations and background information provided by the faculty, a thematic analysis was taken when analyzing the data. Braun and Clarke's (2006) six-step approach to conducting a thematic analysis was used to structure the research design and analysis.

The research produced two main themes and one sub-theme: 1. **Learning through experience** with a sub-theme of **unconfirmed cases**; and 2. **corrective discipline**. Using a pragmatism approach during the research allowed the themes and analysis to suggest that faculty are continually adjusting their behaviours when dealing with students who engage in academic dishonesty. It appears as though faculty attitudes, beliefs, and disciplinary action toward students' academic dishonesty are non-static and are continually evolving based on prior experience and familiarity with existing policies. This study suggests two potential things administrative offices can do to help faculty deal with

academic dishonesty and students. The first is to provide a space for faculty to discuss informal cases; the second is to provide faculty with consistent teaching methodologies when teaching about academic dishonesty.

Faculty in the study tended to use incidents of academic dishonesty as learning experiences for students and often provide instruction at beginning of the term regarding academic dishonesty to students. Seemingly one of the roles of faculty members is a collaboration between faculty and students which involves a learning process of helping students understand what academic dishonesty is and how to avoid it. Supporting this instructional idea, MacLeod and Eaton (2020) find that faculty tend to provide students with some form of instruction regarding academic dishonesty at the beginning of their classes. Thus, providing a methodology on how to teach academic dishonesty in the classroom could be helpful for both students and faculty members and would allow for consistency across classes.

Finally, this research focused on faculty members who teach graduate students within the education discipline. As such, these findings may be limited to the education field and specific to fields that have a more prevalence of plagiarism by students as the main form of academic dishonesty. A review of the existing literature shows a limited amount of research done regarding academic dishonesty at the graduate level specifically in Canada. Recommendations of this research are to 1. Further, expand this study to other fields which have graduate programs and, 2. to further explore the graduate student-faculty relationship in regards to academic dishonesty.

References:

Anderman, E. M., & Won, S. (2019). Academic cheating in disliked classes. Ethics & Behavior, 29(1), 1-22.

Braun, V., & Clarke, V. (2013). Thematic Analysis. In Smith. (2015). Qualitative psychology : a practical guide to research methods (Third edition.). SAGE Publications Ltd.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Coalter, T., Lim, C. L., & Wanorie, T. (2007). Factors that Influence Faculty Actions: A Study on Faculty Responses to Academic Dishonesty. International Journal for the Scholarship of Teaching and Learning, 1(1). https://doi.org/10.20429/ijsotl.2007.010112

MacLeod, P. D., & Eaton, S. E. (2020). The Paradox of Faculty Attitudes toward Student Violations of Academic Integrity. Journal of Academic Ethics, 18(4), 347–362. https://doi.org/10.1007/s10805-020-09363-4

Naghdipour, B., & Emeagwali, O. L. (2013). Students' Justifications for Academic Dishonesty: Call for Action. Procedia - Social and Behavioral Sciences, 83, 261–265. https://doi.org/10.1016/j.sbspro.2013.06.051

THEORY IN RESEARCH ON RESEARCH INTEGRITY

Marina Lambert
The Danish Centre for Studies in Research and Research Policy, Aarhus University
Denmark

This article examines the place of theory in the research on research integrity and how the choices of theoretical frameworks in given studies shape the logic of our inquiry into the issues of research integrity. While the field of research integrity proliferated and gained particular prominence in the past decade (Aubert Bonn & Pinxten, 2019), little consideration has been given to the role of theory in shaping the field. Recognising and building on a vast pool of exploratory studies in the field, this review argues that systematic analysis of theoretical frameworks employed in the research on research integrity is both timely and imperative for further advancement of the field.

In providing a comprehensive overview of existing theoretical approaches developed and applied in the studies of research integrity, this article's contribution is poised to advance our ability to better understand and explain a broad scope of phenomena and practices underpinning the field of research on research integrity. Delivering on this objective, the insight this review stands to offer would contribute to a wider debate on research ethics and academic integrity, and in so doing, this study aims to make a further contribution to the overarching objective of tackling the persisting lack of public trust in science.

Firstly, to provide an inclusive overview of the relevant research and the theoretical variation underpinning the field of research integrity, we conducted systematic searches of SCOPUS, PubMed, and Web of Science databases for articles published in English between 2010 and 2023, based on a pre-defined set of search terms (that include: research, academic, and scientific integrity, research and scientific misconduct, good and questionable research practices). Having surveyed a total of 4.545 publications, the study analysed 490 articles specifically focused on research integrity, which includes studies on scientific misconduct, questionable research practices, responsible conduct of research more broadly, as well as in their individual manifestations across different disciplines. Secondly, this study has classified each selected article according to whether it explicitly engaged one or more theories in its approach to the analysis of research integrity.

Recognizing a growing body of atheoretical (non-theory-driven) research that advocate for the promotion of research integrity (e.g., Bouter, 2020), develop classifications of types of research misconduct (e.g., Shaw, 2019), and propose approaches to awareness-raising in the research community (e.g., Satalkar & Shaw, 2019), this article further focused on the studies whose design built on employing various theoretical frameworks as a principal point in structuring their analytic work (N=82). This allowed to map the diversity of theoretical approaches engaged in the field and contribute to the discussion on the role of theory in research on research integrity. The article finds that the theoretical landscape of research on research integrity is varied and heterogenous, dominated by grounded theory (e.g., Nelson et al, 2020) and Scandinavian institutionalism (e.g., Czarniawska, 2009), but also engages a broad scope of theoretical choices that are less prevalent in the field, including social psychology (e.g., Tijdink et. al, 2016), psychoanalytic theory (e.g., Zwart, 2017), and critical discourse analysis (e.g., Davies, 2019). Finally, this study investigates the implications that the choice of theory bears on research design and the logic of inquiry into a given aspect of research integrity, as well as discusses the potential effects applications of different theoretical lenses has on shaping the course of development of the field itself.

References:

Aubert Bonn, N. & Pinxten W. A. (2019). Decade of Empirical Research on Research Integrity: What Have We (Not) Looked At? *Journal of Empirical Research on Human Research Ethics*, 14(4), 338-52

Bouter, L. (2020). What Research Institutions Can Do to Foster Research Integrity. Science

and engineering ethics, 26, 2363–2369. https://doi.org/10.1007/s11948-020-00178-5
Czarniawska, B. (2009). Emerging institutions: pyramids or anthills? *Organization Studies*, 30(4), 423-41
Davies, S.R. (2019). An ethics of the system: talking to scientists about research integrity. *Science and engineering ethics*, 25(4),1235-53
Nelson, N.C., Ichikawa, K., Chung, J., & Malik, M. (2020). Mapping the discursive dimensions of the reproducibility crisis: A mixed methods analysis. MetaArxiv. 2020
Satalkar, P., Shaw, D. How do researchers acquire and develop notions of research integrity? A qualitative study among biomedical researchers in Switzerland. *BMC Med Ethics* 20(72). https://doi.org/10.1186/s12910-019-0410-x

Shaw, D. (2019). The Quest for Clarity in Research Integrity: A Conceptual Schema. *Science and engineering ethics,* 25, 1085–1093. https://doi.org/10.1007/s11948-018-0052-2
Tijdink JK, Bouter LM, Veldkamp CLS, van de Ven PM, Wicherts JM,& Smulders, Y.M. (2016). Personality Traits Are Associated with Research Misbehavior in Dutch Scientists: A Cross-Sectional Study. PLOS ONE. 11(9):e0163251
Zwart, H. (2017). Tainted Texts: Plagiarism and Self-Exploitation in *Perlmann's Silence* . In: Tales of Research Misconduct. Library of Ethics and Applied Philosophy, vol 36. Springer, Cham. https://doi.org/10.1007/978-3-319-65554-3_8

Data Ethics Checklists: A Tool for Detecting Ethical Problems with Data

Jana Dannhoferová[1], Pavel Turčínek[2], Veronika Krásničan[3] & Sonja Bjelobaba[4]

[1] *Faculty of Business and Economics, Mendel University in Brno, Czech Republic*
[2] *Faculty of Business and Economics, Mendel University in Brno, Czech Republic*
[3] ENAI*, Czech Republic*
[4] Centre for Research Ethics & Bioethics (CRB), Uppsala University, Sweden

Data is used for important input when drawing conclusions and making decisions, thus influencing all areas of human activity. Every time we take actions and make decisions in our lives, we need to consider ethical principles and practices. Ethical standards also need to be addressed whenever we work with data in any environment especially academic or research. However, the whole process of working with data brings potential ethical problems such as data fabrication, data falsification or data imputation etc. Data-related ethical violations can also occur unintentionally. It is therefore necessary to address the ethical aspects of working with data.

The aim of this paper is to highlight the potential ethical issues that can arise at all stages of the data lifecycle and at the same time to provide and present a tool to help identify the different ethical risks that can occur whenever we work with data. Although data ethics checklists already exist in practice, they are not very comprehensive and are value-based rather than data lifecycle-based. Therefore, we decided to create a new and more detailed data ethics checklist. This approach is supported by Gundersen (2017) who states that guidance for the scientific integrity and ethics of data must be provided within the context of the research data lifecycle.

When dealing with data ethics, it is important to be clear about what we mean by data. It is a collection of raw facts, observations, measurements, or descriptions. It is only when we give meaning and give context to data that we can make it meaningful and useful and call it information. Data ethics is not just about what is right and what is wrong. Obtaining the necessary consent and complying with the requirements of the GDPR rules does not ensure the ethical purity of working with data. Data ethics is about ownership, privacy, intentions and outcomes (Cote, 2021), about responsibility, transparency (Utts, 2021) and other values. According to Statistics Canada (2022) data ethics allows users to ask questions about the appropriate use of data throughout all steps of the data journey. Data ethics brings different ethical challenges and it is also about the standards that govern how data is handled at each stage of the lifecycle.

There are many variations of the data lifecycle. For example, Lendhardt et al. (2014) define eight stages of the data lifecycle: plan, collect, assure, describe, preserve, discover, integrate, analyze. In our opinion, the data lifecycle is much better described by Kumar & Kumar (2020) who used a six-stage cycle: create, store, use, share, archive and destroy. This model corresponds much better with the ethical dilemmas that arise in practice and refers to the entire period of time that data exists. In our case, we start from the data lifecycle, which has six stages: Plan and Preparation, Acquisition, Storage and Protection, Usage, Archiving and Re-use and Destruction. Data lifecycle helps us to manage data ethics issues through all stages from planning and preparation to data destruction, if necessary. What is important is that data integrity must be guaranteed at every stage of the data life cycle when people work with data.

In the first phase of creating the Data Ethics Checklists, we identified the potential risks of working with data for each stage of the data lifecycle. We also looked at similar tools that have been developed, for example by Loukides, Hilary & Patil (2018). We also used group discussions to collect data from 37

doctoral students in medicine at Uppsala University, Sweden.
The respondents were divided into six groups and each group was given the task of discussing issues that may arise at different stages of the data lifecycle. For each stage of the data lifecycle, they were asked to identify the most important statements that need to be considered in terms of data ethics. The answers obtained were compared with the basic set of statements we had previously created and the data ethics checklist was supplemented with additional questions.

There are no comprehensive recommendations on how to approach data ethically depending on the data lifecycle. That is why we would like to present at the conference the final version of our data ethics checklist, which was produced as one of the outputs of the data ethics module of the Bridge project (see below).

In the future, we plan to use the methodology and conduct further data collection in the form of guided interviews with different groups of people from the academic and research community. Our aim is to produce a checklist that is as universal as possible and that identifies all the possible risks of working with data. As the data lifecycle can vary from organisation to organisation and team to team, users can tailor the content of the checklist to their own procedures and processes.

Acknowledgement

This contribution was supported by the Erasmus+ Strategic Partnerships project 2020-1-SE01-KA203-077973 – Bridging Integrity in Higher Education, Business and Society (Bridge project) .

References

Gundersen, L. C. (2017). Scientific Integrity and Ethical Considerations for the Research Data Life Cycle. Advancing Earth and Space Science (AGU). https://doi.org/10.1002/9781119067825.ch9

Utts, J. (2021). Enhancing Data Science Ethics Through Statistical Education and Practice. International Statistical Review, 89(1), 1–17. https://doi.org/10.1111/insr.12446

Kumar, R., Kumar, B.R. (2020). Data Life Cycle Management in Big Data Analytics. Procedia Computer Science, 173, 364–371, ISSN 1877-0509. https://doi.org/10.1016/j.procs.2020.06.042.

Lenhardt, C., Ahalt, S., Blanton, B., Christopherson, L. Idaszak, R. (2014). Data Management Lifecycle and Software Lifecycle Management in the Context of Conducting Science. Software Sustainability Institue, 2(1). https://doi.org/10.5334/jors.ax

Statistics Canada (2022). Data Ethics: An Introducion (video). Retrieved from https://www.statcan.gc.ca/sites/default/files/892000062022001-eng.mp4

Cote, C. (2021). Five principles of data ethics for business. Retrieved from https://online.hbs.edu/blog/post/data-ethics

Loukides, M., Mason, H., Patil, D.J. (2018). Ethics and Data Science (e-book). O'Reilly. Retrieved from http://bit.ly/ethicsdatasci

Eticas Foundation (2023). Data Ethics Checklist. Retrieved from https://eticasfoundation.org/wp-content/uploads/2020/03/DataEthicsInfographic.pdf

Teaching Research Integrity in Taiwan High Schools: A Little Book for Junior Researchers

Chien Chou
National Yang Ming Chiao Tung University, Taiwan

Background

Ensuring the integrity of research is essential for upholding the quality of scientific knowledge. A shared professional standard, such as a code of conduct for research integrity, could serve as the foundation for globalization of research integrity training. As a relatively new entrant into the global research arena, Taiwan has started its research integrity campaign in the past ten more years. One of the most important documents in this campaign is the Taiwan Code of Conduct for Research Integrity (the Taiwan Code) published in 2020 by the University System of Taiwan. The Taiwan Code is a research community-led effort to serve as a reference for the enhancement of research integrity in the local academic context. Like other similar codes of conduct in the world, the Taiwan Code includes principles of research integrity, responsible conduct of research (RCR), types of research misconduct, and responsibilities of research institutions.

However, the target users of Taiwan Code are all research personnel (including graduate students) in the higher education and research institutions. Junior researchers such as high school students who have little training and experience in research would have great difficulty in reading the principles, understanding the meaning of RCR, let alone practicing their understanding in the research tasks. Thus, there is a need to develop a junior version which not only uses less abstract language but also provides concrete examples in their school life context.

The need has also been fueled by the high school students' new curriculum requirements. High school students are encouraged to write research essays to be included in their learning portfolios for university applications. Most of the students would also submit their essays to the National Teen Essay Contest and the award-winning works would be open on its website. In keeping with the popularity of the contest, some misconduct cases such as plagiarism or duplicate submission were reported and the number has been increasing. Educators feel it is time for high school students to learn some basic principles and practices of research integrity, and therefore the junior version of Taiwan Code was taken into consideration.

Method

The development of the junior version followed the ADDIE model (analysis, design, development, implementation, evaluation; Smith & Ragan, 2004). First, in the **analysis** stage, the research team interviewed two local high school teachers and one student, and collected opinions from more than 100 high school teachers in three workshops. An online meeting with the staff of the Japan Association for the Promotion of Research Integrity (APRIN) was arranged to understand their concerns for designing research integrity learning materials for high school students. Results from interviews, opinion collection and meeting indicated that topics regarding responsible conduct of research (RCR) and definitions of falsification, fabrication and plagiarism (FFP) were equally important and should both be covered in the junior version. As for learning material presentation and preferences of learners, simple sentences along with real-life examples and colorful illustrations were suggested.

In the stages of **design** and **development**, we echoed the results from the analysis phase and drafted a preliminary version. The names of chapters were decided and the compilation of case scenarios and questions to be discussed were initiated. In the stages of **implementation** and **evaluation**, the junior version was introduced in two workshops for more than 80 high school teachers and its use in high school classrooms was demonstrated. A formative evaluation by three RI experts, one high school teacher and one high school

student was conducted. The evaluation results indicated that content is appropriate for high school teaching, the text is understandable, and the tone is acceptable for high school students.

Results

The junior version is titled "You Can Be a Great Researcher: Taiwan Junior Code of Conduct for Research Integrity." The junior version is published in two editions: one for teachers and one for students. The major difference between the two is that teacher's edition has suggested answers to the questions of each example. The first sentence in the Forward wishes to prepare the students for research practices: "Doing research is exciting but a little bit difficult, and doing research requires knowledge of the fundamental principles."

The second part is the list of research integrity principles: honesty, respect, scrupulousness, accountability, and transparency, as listed in the Taiwan Code. Each one uses the original text from the Taiwan Code with a following paragraph providing simple, clear and brief explanations (Simply put…; In other words…, etc.).

The third part lists 6 topics in responsible conduct of research, such as "Respect and protect research participants," and following each topic is one scenario as an example with several questions for discussion. Students may build their knowledge through intense interactions with the teacher and their classmates while they analyze each scenario. Furthermore, they are able to articulate, refine, and even reflect upon their thinking about real-life practice of ethical and responsible research.

The fourth part introduces the three major types of research misconduct with one example for each: fabrication, falsification, and plagiarism (the FFP). Besides FFP, discussions and examples related to data collection, execution of research, and results reporting are also provided.

In total, 14 examples (studies) are provided with illustrations in the junior version. All exemplary studies are relevant to high school context and within students' understanding and capacity; that is, they can be real research topics for students to explore. Among them, 6 examples demonstrate positive research behaviors (RCR), 8 are negative (misconduct or minor breach). The characters of the examples are gender-balanced to avoid gender bias especially when we portray the image of "researcher."

In addition to the above-mentioned text and examples, side boxes are also provided to enrich the content: "The introduction to Taiwan Code for research integrity," "Why is integrity so important," "What is APA style," "What is ethical review of research involving human subject," and "Is there an honest mistake?" It is hoped that the information in these boxes would enhance students' overall understanding of research integrity and empower them for responsible research conduct.

Conclusion

High school students, as potential researchers, have chances to be involved in research activities and are given more opportunities to report their results through presentations and contests. Recognizing the importance of teaching research integrity to high school students, a number of learning modules and toolkits have been developed in Europe (such as the Path2Integrity learning cards) but none in Taiwan. The publication of the Taiwan Code junior version is the first step to address the need for RCR instruction in Taiwan, and it is also a leading step in the development of learning materials for research integrity in secondary education in Asia. Specifically, we use vivid illustrations and case scenarios presented in simple sentences to provide high school students with an introduction to research integrity and engage them in reflective thinking. After a small-scale formative evaluation, this version is being undergone a summative evaluation currently, and will be free for download to high school campuses. By the time of presentation at the conference, the English version should be

ready to share with the global RCR education community.

References

Smith, P. L., & Ragan, T. J. (2004). *Instructional design* (3rd ed.). Wiley & Sons.

University System of Taiwan. (2020). *Taiwan code of conduct for research integrity*. https://www.ust.edu.tw/eng/News_Detailed.aspx?GUID=9359888e-e40d-475c-bce6-dd651a680927

Delegates from Contributing Countries