



Understanding Personal Responsibility around GenAI Use for Academia

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HEFCW-funded Welsh Integrity and Assessment Network: Symposium 2024





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Learning is a life-long process.

In the spirit of upholding integrity in my work, **I have learned that I must mention that parts of this presentation have been taken from previous presentations of mine** on technology in education, other presentations I have done in schools and seminars and in my PhD dissertation presentation

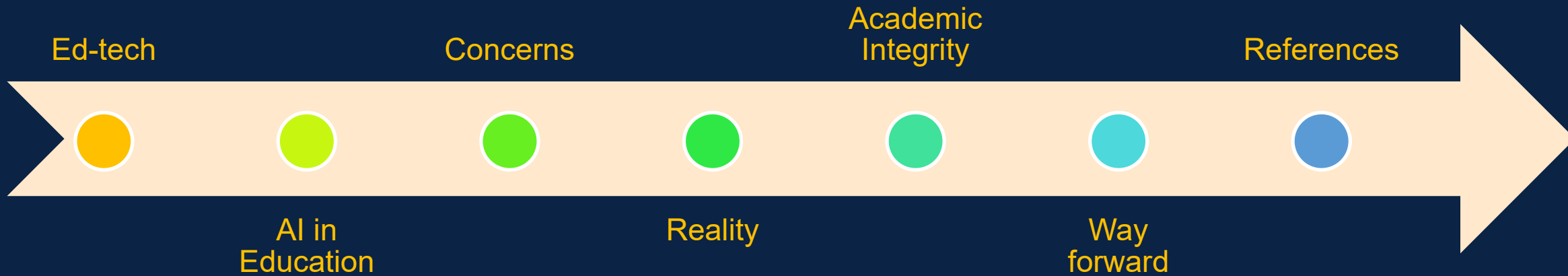
I have learned this practice from one of my mentors and closest friends, Dr Teddi Fishman, former Director, International Centre for Academic Integrity, USA

-Zeenath Reza Khan

Agenda



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Preamble to this talk



Why 'Understanding Personal Responsibility around GenAI Use for Academia'



Let's Ignite Integrity Together

Technology in our classrooms

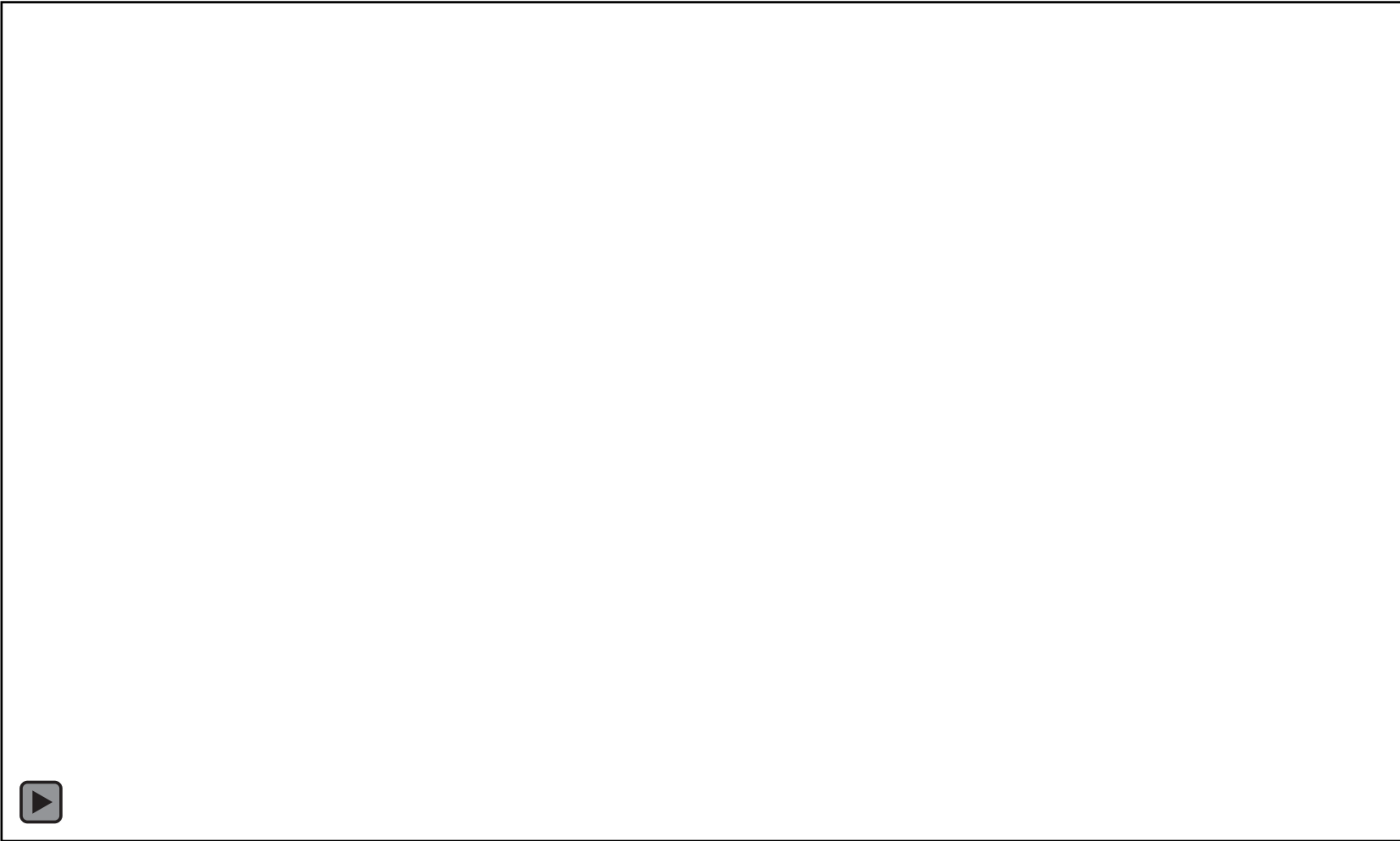
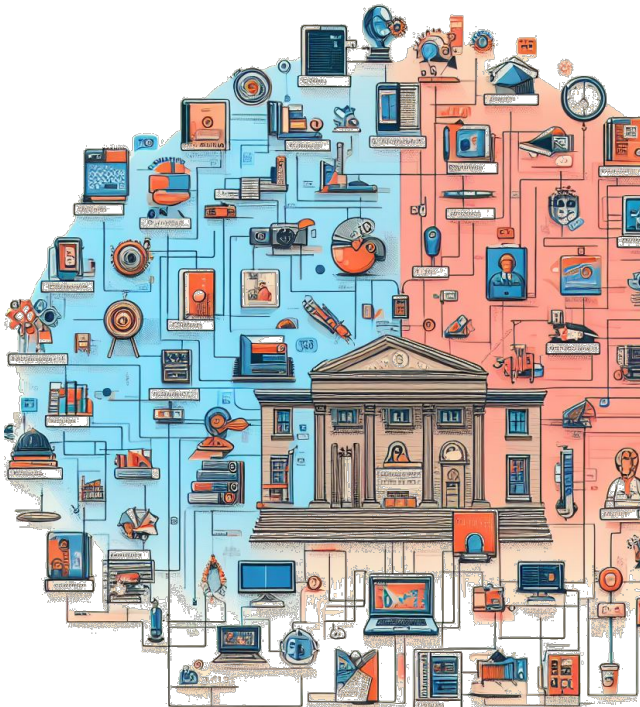


Image – Bing Dall-E [prompt tech in classroom]

Source: <https://www.youtube.com/watch?v=avh2Ppw5wc8> Speed edit – Adobe Express

Let's Ignite Integrity Together

Rise of the Artificial Intelligence!

A new phenomenon?

It was twenty feet square, placed in the middle of the room. The superficies was composed of several bits of wood, about the bigness of a die, but some larger than others. They were all linked together by slender wires. These bits of wood were covered, on every square, with paper pasted on them; and on these papers were written all the words of their language, in their several moods, tenses, and declensions; but without any order.



“The Engine” is a fictional device described in Gulliver’s Travels by Jonathan Swift in 1726

A lot of what we perceive about AI is shaped by science fiction and Hollywood!

Let’s Ignite Integrity Together

Rise of the Artificial Intelligence!

It's been around for a while!

616

L. Wang/Engineering 5 (2019) 615–618

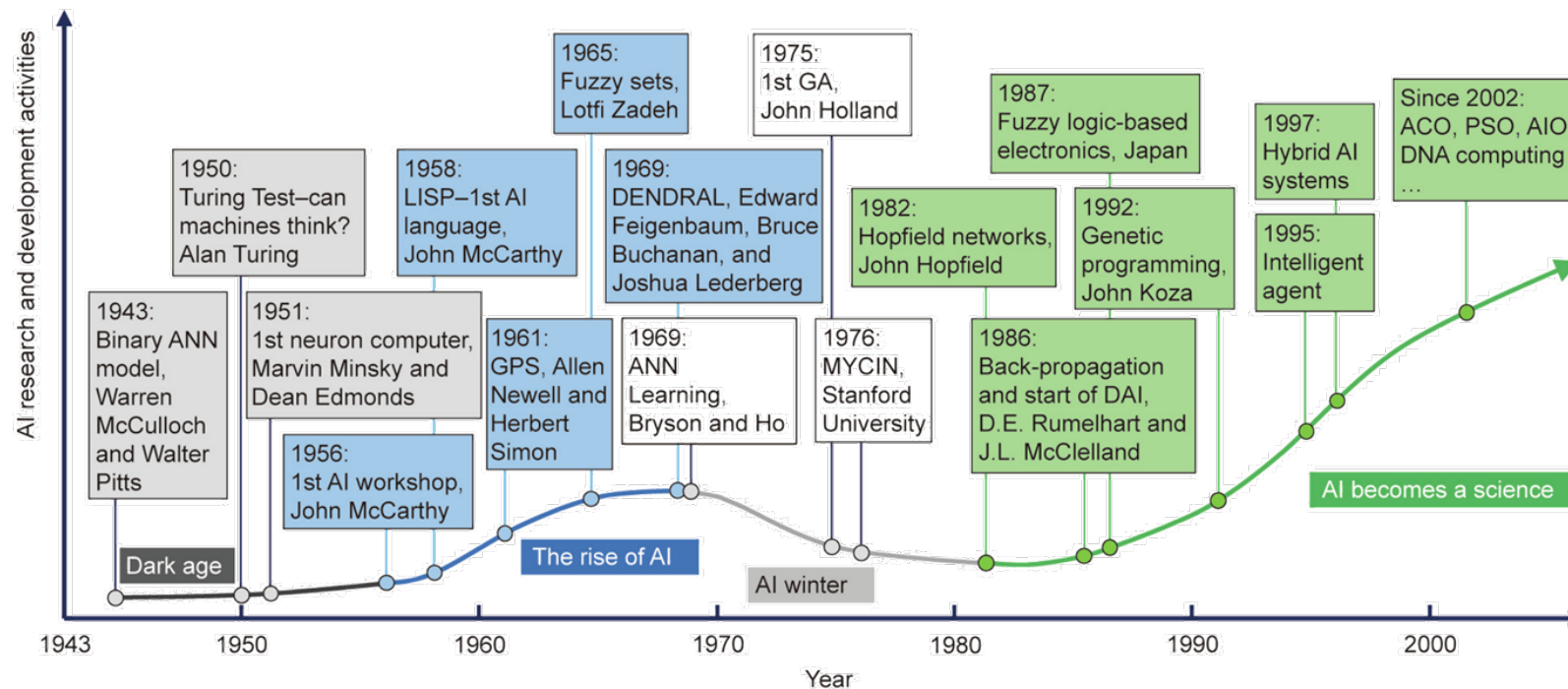


Fig. 1. A brief history of AI.

Image source: <https://www.sciencedirect.com/science/article/pii/S2095809919301821>

Let's Ignite Integrity Together



Rise of the Artificial Intelligence!

It is ubiquitous and omnipresent



Email spam filters

Predictive search terms

Siri

Online virtual assistants

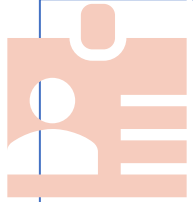
Online recommendations

Reverse image searching

...

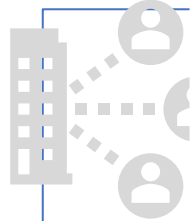
Source: Parallel Consulting -
<https://twitter.com/parallelrecruit/status/1006139992547168256?lang=ar-x-fm>

AI in Education (AIED)



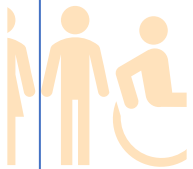
Personalised learning

- using data analytics to learn about students, their style of learning, engagement, effectiveness of curricular design, assessment design and others



Collaborative learning

- using AI tools to allow greater collaboration between students and faculty beyond borders, time zones, languages



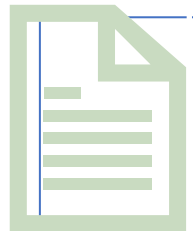
Accessibility and inclusiveness

- using voice to text and facial recognition to allow students with determination to engage with peers, teachers and content in an inclusive classroom



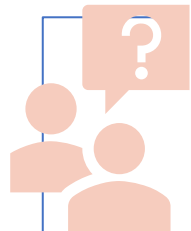
Automated grading and feedback

- AI tools can be used to provide grading and feedback using rubrics that teachers can set up and use with scalability and efficiency



Digital content creation

- using AI to create simulations, immersive classrooms, visualization of lessons, digital lessons that can be regularly updated



Student learning assistance

- chatbots set up can be available to students any time, anywhere to answer questions, clarify concepts and provide student assistance



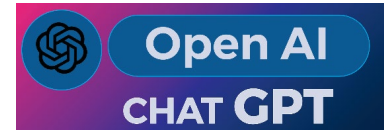
Listed under TEQSA Artificial
Intelligence Resources in Good
Practice Hub



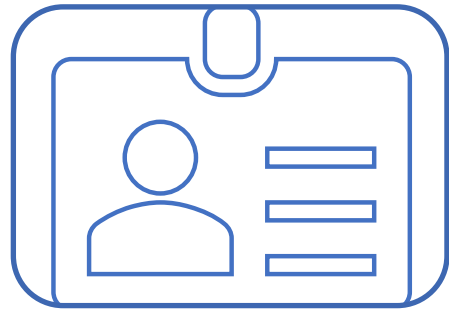
Australian Government
Tertiary Education Quality and Standards Agency

TEQSA

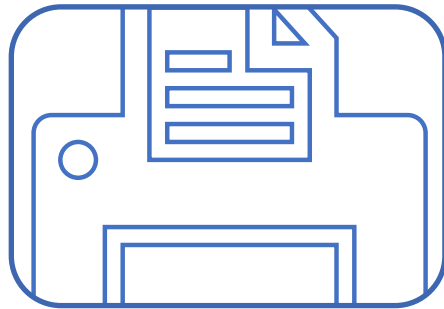
AI Content Generators



Concerns and Challenges of GenAI

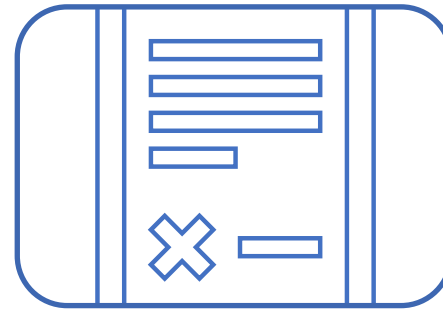


Accountability and Acknowledgement



Originality and Plagiarism

- “there’s no previous work for the student to copy” (Peritz, 2022, p3)
- content may have copyright concerns, but is original

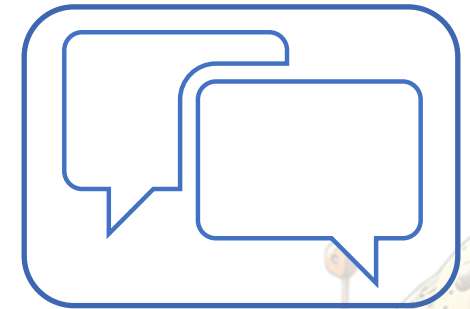


Contract Cheating and responsibility



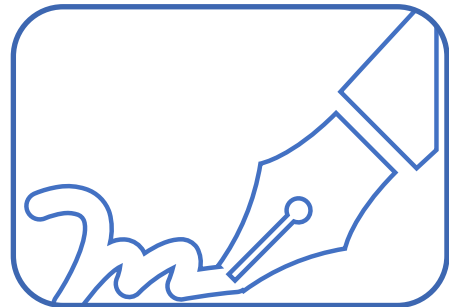
Detection challenge

- tools cannot guarantee a high confidence of detection without false positives

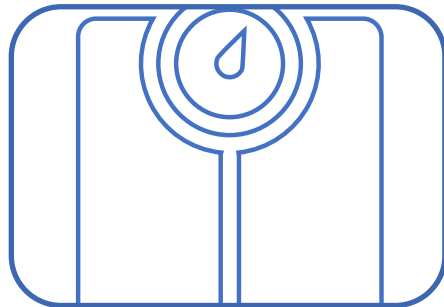


Simple, conversational, seemingly right information

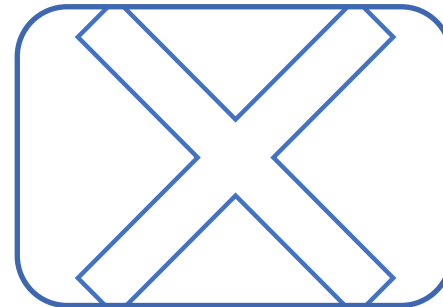
- Fake news
- Misinformation



Reduces writing skills



Bias in algorithm and training data



Wrong answer given confidently – AI Hallucination



Privacy concerns – whose work is it?



Text fed into the models can skew narratives


(Source: Khan, 2023)






Concerns and Challenges of GenAI

Free version – not a search engine, and information cannot be verified

ChatGPT 3.5 ▾

dubai rain and flooding 2024

 I'm sorry, but I don't have access to real-time information or events that have occurred after January 2022, including any updates on weather events in Dubai in 2024. However, if you're looking for information on Dubai's weather patterns or past incidents of rain and flooding, I can certainly provide that. Would you like me to help with that instead?


Google

dubai rain and flooding 2024

All News Images Videos Shopping More Tools

Today Update Latest news Sharjah

On 16 April 2024, heavy rains caused floods in the United Arab Emirates, affected cities of mainly Dubai and Sharjah, the northern Emirates, and different areas of the Emirate of Ras Al Khaimah.



Wikipedia
https://en.wikipedia.org/wiki/2024_United_Arab_Emirates_floods

[2024 United Arab Emirates floods - Wikipedia](#)

About featured snippets Feedback


People also ask

How much rain in Dubai in 2024?

What happened to Dubai in 2024?


Concerns and Challenges of GenAI

ZE draw a class diagram for biometric log in in a mobile app

 Sure, here's a possible class diagram for biometric login in a mobile app:

```
diff Copy code
+-----+
|      MobileApp      |
+-----+
| - biometricManager: BiometricManager |
| - loginManager: LoginManager |
+-----+
| + authenticateWithBiometrics() |
| + authenticateWithCredentials() |
+-----+




+-----+
|      BiometricManager      |
+-----+
| - biometricPrompt: BiometricPrompt |
+-----+
```




LoginManager: This class handles traditional login with a username and password. It has `username` and `password` fields, and provides `login()` and `logout()` methods for initiating or terminating a user session.

Overall, this class diagram shows how biometric and traditional login can be handled by separate components within a mobile app.

ZE What about the multiplicity of classes

 Sure, I can include the multiplicity of classes in the class diagram. Here's an updated version with multiplicity indicated:  

```
sql Copy code
+-----+
|      MobileApp      |
+-----+
| - biometricManager: BiometricManager |
| - loginManager: LoginManager |
+-----+
```



Concerns and Challenges of GenAI

ChatGPT generated references for prompt "Write an academic text on threats to academic integrity from ChatGPT" followed by "Please provide references for the above text"



Unfortunately, as an AI language model, I do not have access to specific references for the text I generate. However, I can suggest some relevant sources on the topic of academic integrity and language models:

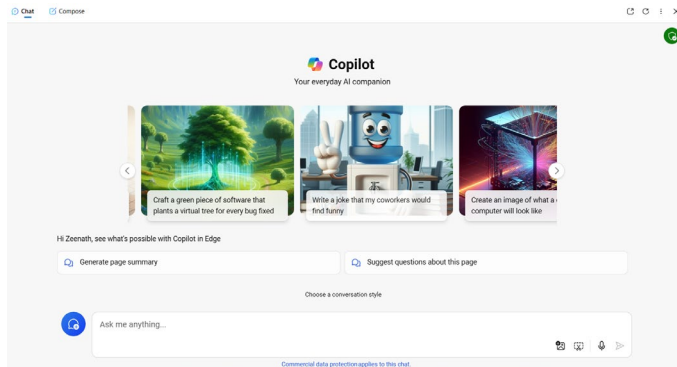


- Bretag, T. (2019). Handbook of academic integrity. Springer.
- Roig, M. (2019). Ethical and practical issues related to academic integrity and the use of language technologies in the writing of scientific papers. *Science and Engineering Ethics*, 25(1), 109-124.
- Winkler, R. L. (2018). A brief review of the state of the art in plagiarism detection using artificial intelligence. *Journal of Educational Computing Research*, 56(8), 1167-1184.
- Pomerantz, J. (2019). AI and the Future of Academic Integrity. *EDUCAUSE Review*, 54(6).
- Strohmaier, M., & Wiesenhofer, H. (2021). To Catch a Chatbot: On the Detection of Machine-Generated Text in Student Essays. *Proceedings of the 12th ACM Conference on Learning@Scale*.

These don't exist!

(Source: Khan, 2023)

Concerns and Challenges of GenAI



Let's Ignite Integrity Together

Concerns and Challenges of GenAI

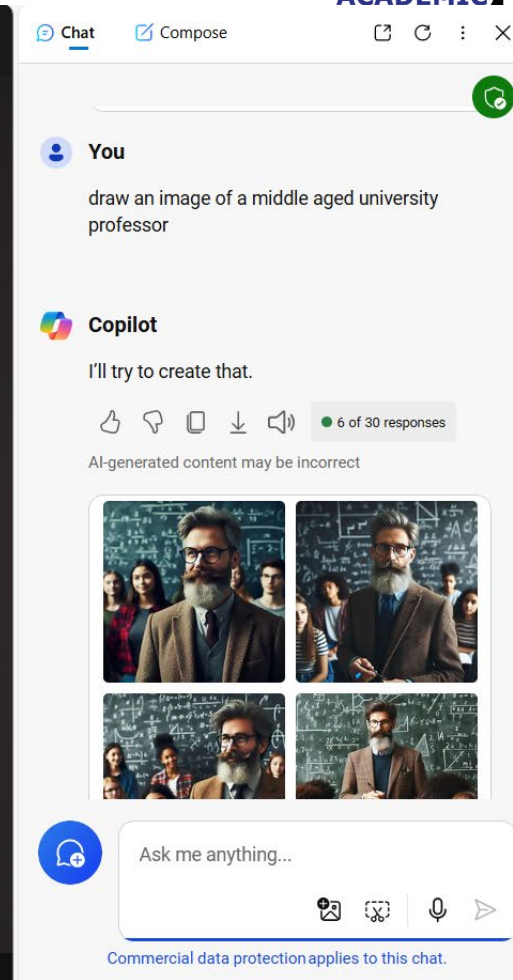


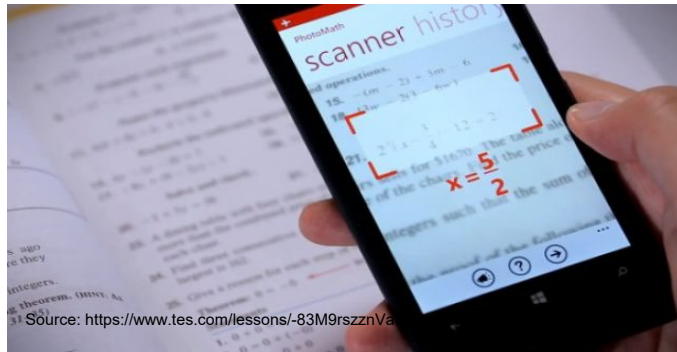
Image generated using Copilot



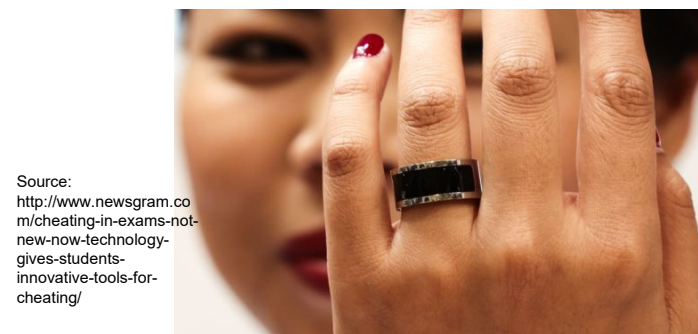
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Are most of these concerns new?

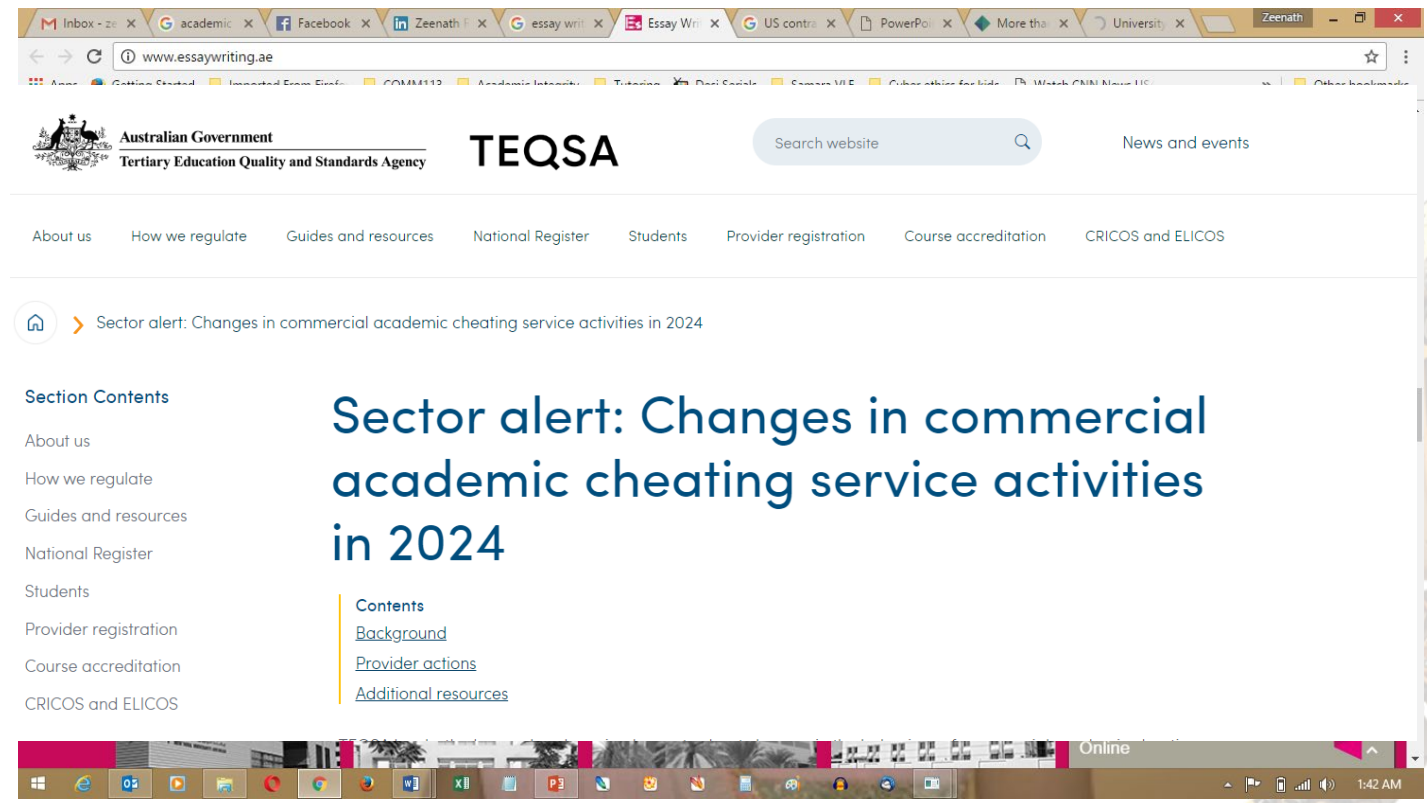
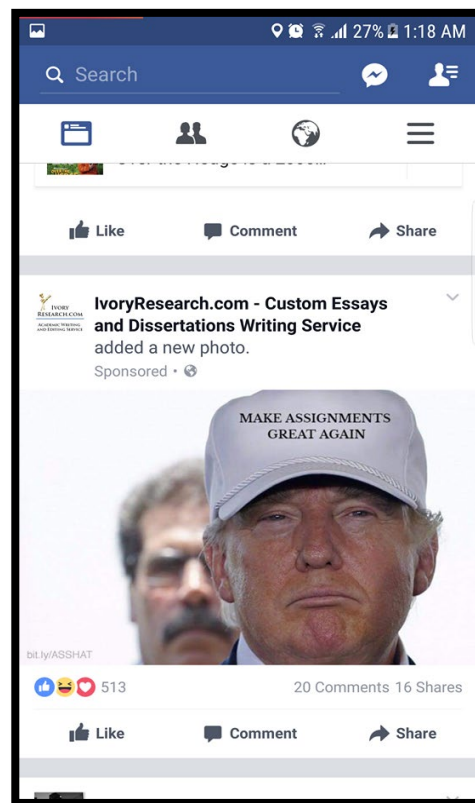
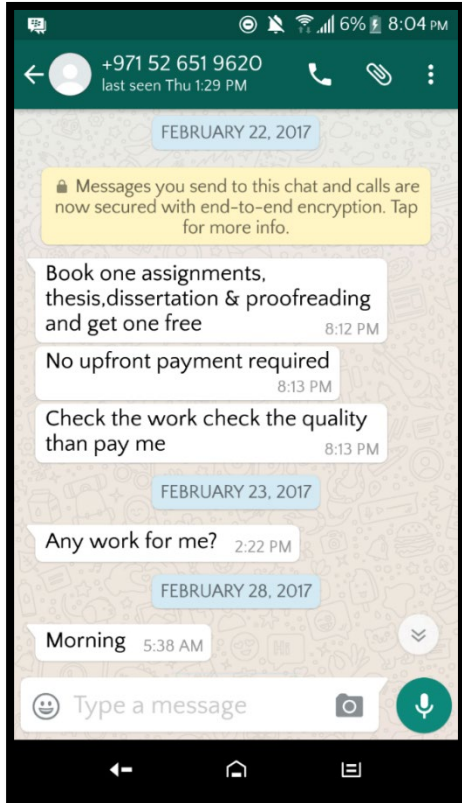
Are most concerns new ones?



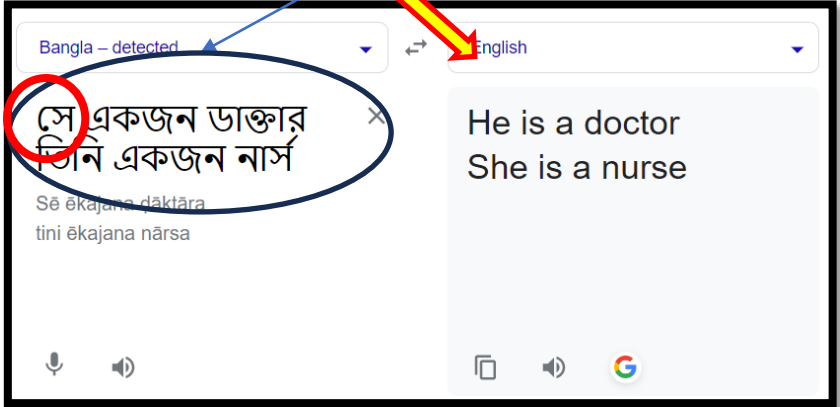
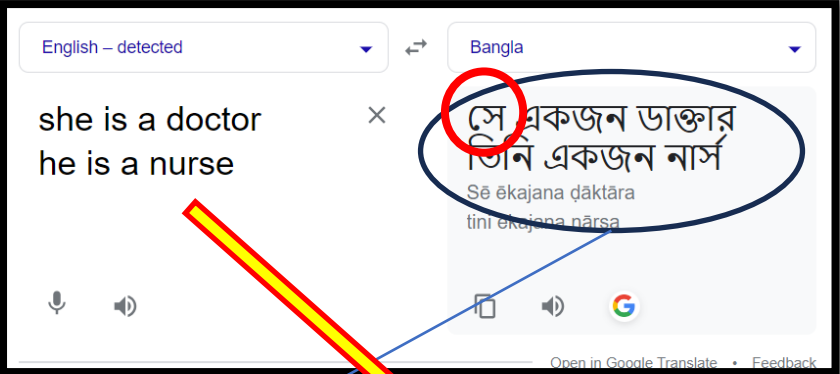
E-cheating (or electronic cheating) is defined as using some form of ICT to perform academic misconduct or dishonesty in or out of classrooms in order to gain unfair advantage (Khan & Samuel, 2007)



Are most concerns new ones?



Are most concerns new ones?





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**Could the problem be in the
process of making decisions?**

Ethical decision making using genAI



Principle of
fairness



Principle of
privacy



Principle of
transparency



Principle of
accountability



Principle of
autonomy



Principle of
beneficence

Source: Tang & Su, 2023

Ethical decision making using genAI... is difficult

Complexity and Opacity of AI Systems

Black box nature: Difficulty in understanding AI decision-making processes.

Complexity: Specialized knowledge required to interpret AI systems.

Bias and Discrimination

Data bias: Training data may contain historical biases.

Algorithmic bias: Design and implementation of algorithms can introduce biases.

Accountability and Responsibility

Diffusion of responsibility: Unclear who is responsible for AI decisions.

Ethical frameworks: Need for new guidelines and standards specific to AI.

Autonomy and Human Oversight

Loss of human control: Reduced human oversight in decision-making.

Balancing autonomy and assistance: Ensuring AI supports rather than replaces human judgment.

Privacy and Consent

Data privacy: Ensuring ethical collection, storage, and use of student data.

Informed consent: Challenges in obtaining consent for data use in AI systems.

Ethical Design and Implementation

Ethical design: Incorporating ethical considerations into AI development.

Implementation practices: Ensuring ethical use of AI throughout its lifecycle.

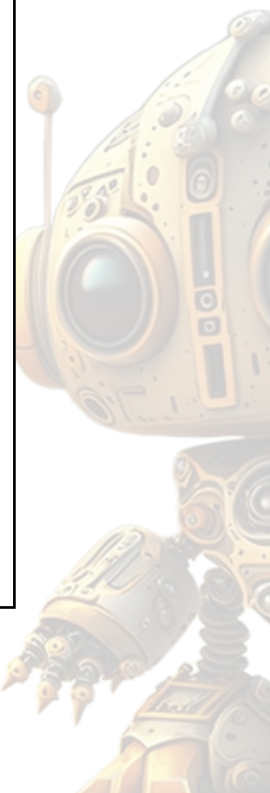
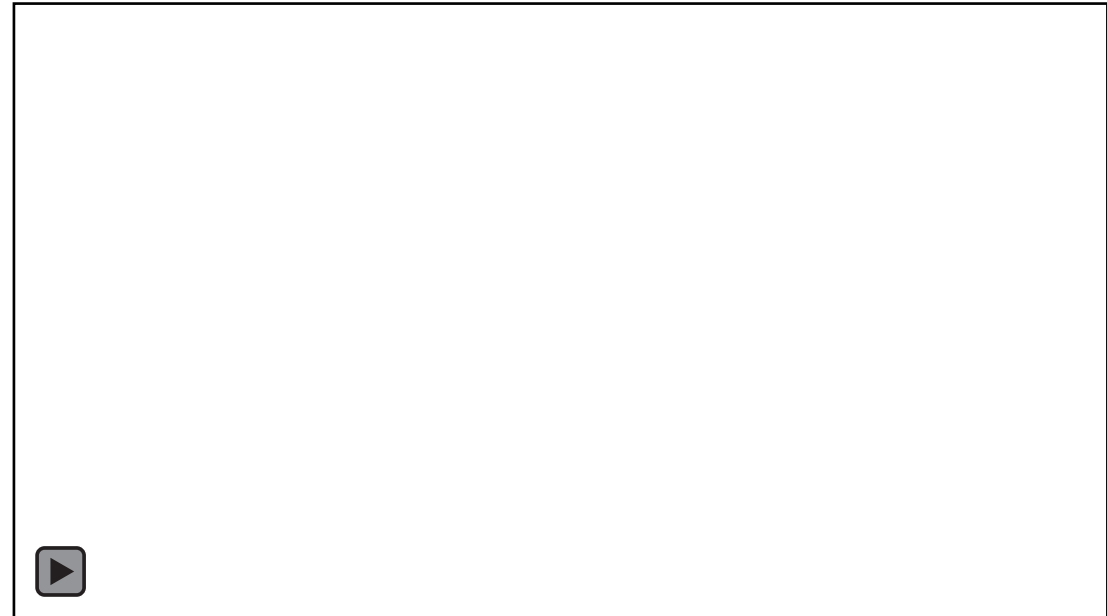
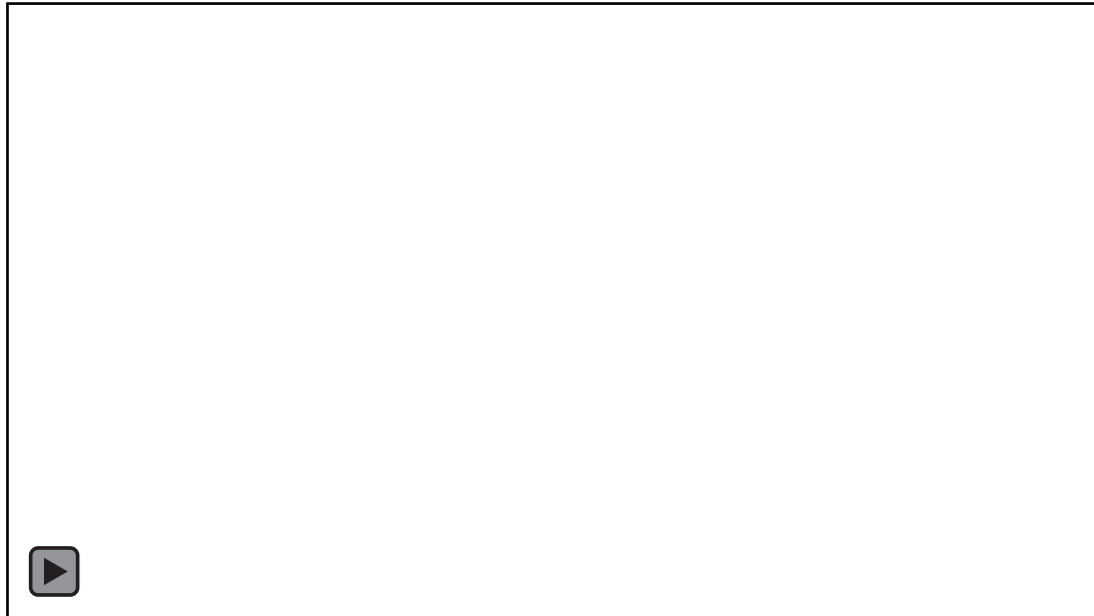
Dynamic and Evolving Nature of AI

Rapid evolution: Development of AI outpaces ethical and regulatory guidelines.

Adaptability: New ethical challenges arise as AI systems evolve and learn.



Decision making isn't simple...



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Does end justify the means?

Today's
society
believes end
justifies the
means

(Mintz, 2018)

“if a goal is morally important enough,
any method of achieving it is
acceptable”

*Kantianism – Categorical Imperative II says we must treat a person as an end in themselves and not as a means to an end

* Special 'Thank you' to AUE Provost - Prof. William Cornwell for correcting the slide representation of Kantian theory

Let's Ignite Integrity Together



Ethics and Personal Moral Responsibility

Are we teaching our students to be ethical decision makers?

“Ethical decision making is not simply about the outcomes; but the manner in which we achieve them”

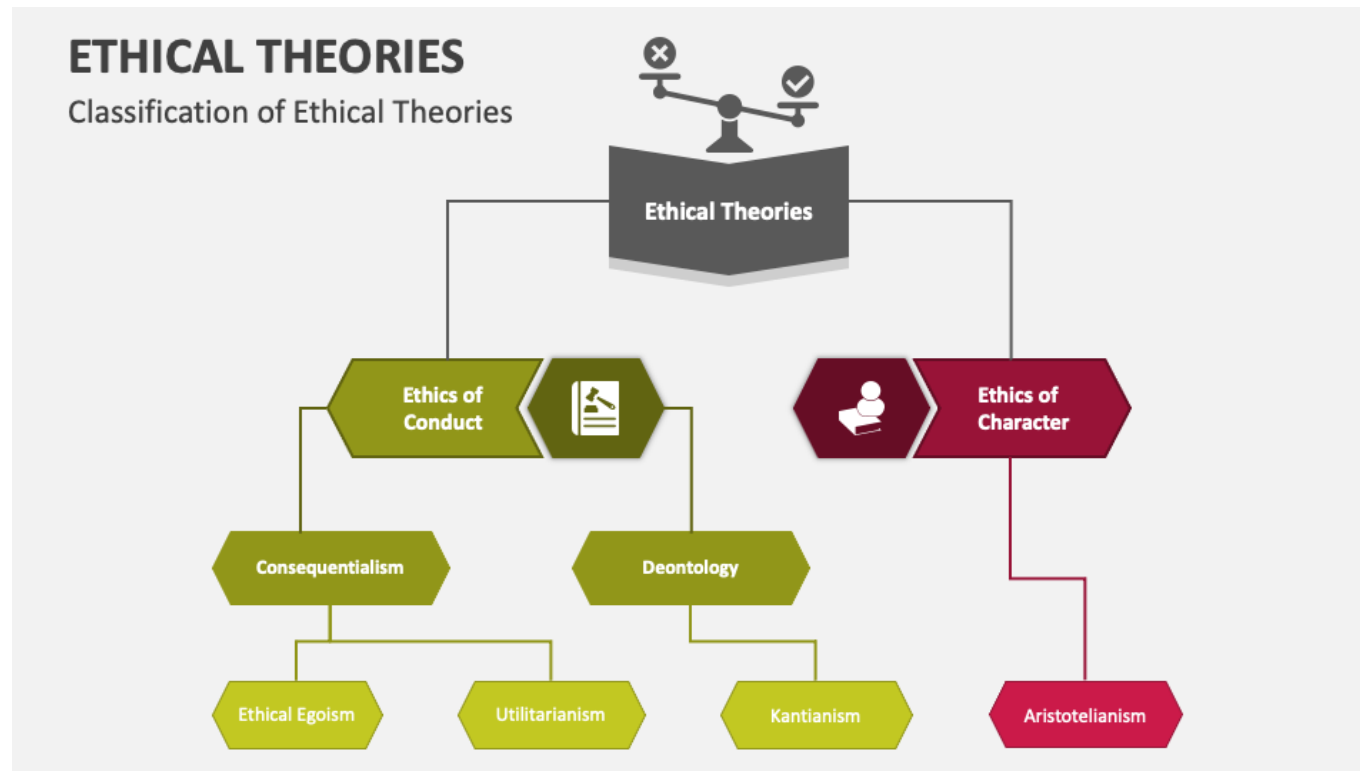
Slide Information – Shivadas Sivasubramaniam, UK, 2021

Let's Ignite Integrity Together

Ethics and Personal Moral Responsibility

These are age-old theories that have been in existence

Ethics is the rational study of morality or rules of conduct, evaluating people's behaviour in given situations of moral problems (Quinn, 2015)



Justice as fairness

John Rawls, *A Theory of Justice* (1971)

- Justice as “the first virtue of social institutions”

Subject of justice:

- The basic structure of society
- Concerning general rules, which are to be permanent
- The basis for deciding individual cases (of allocation) consistently

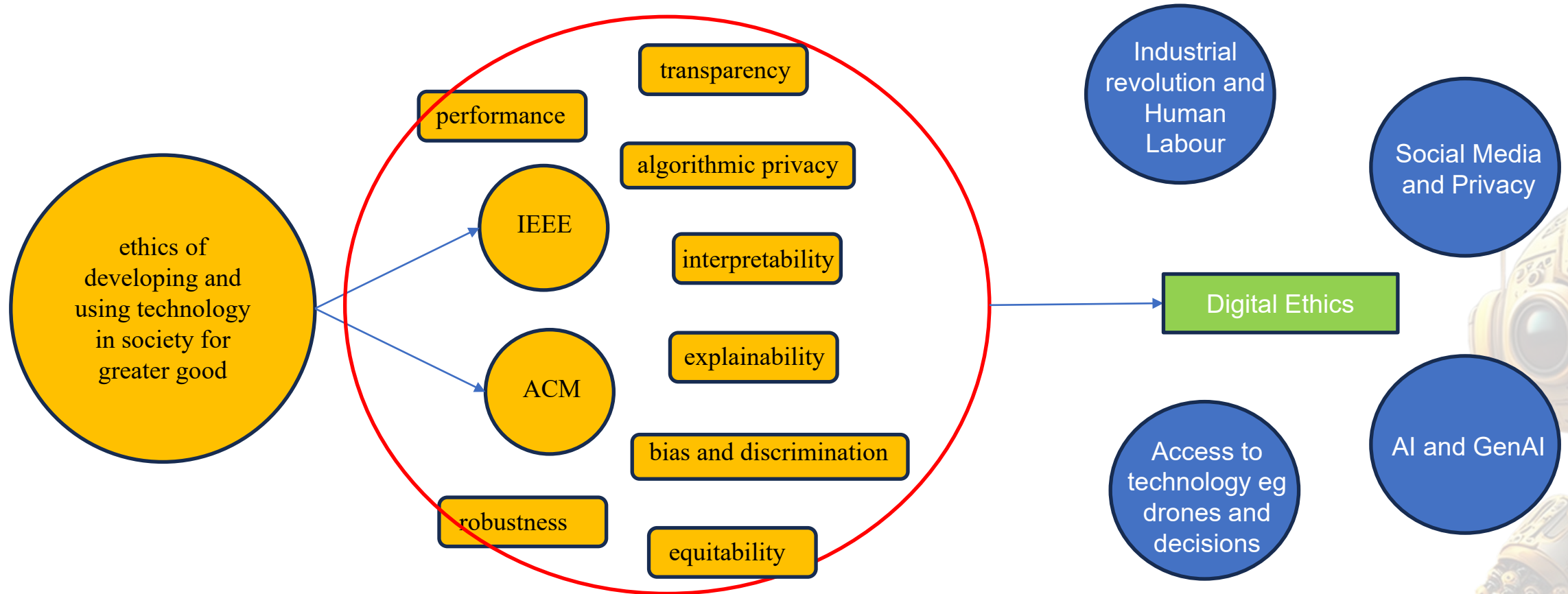
Justice as fairness

- ‘Principles of justice are agreed to in an initial situation that is fair’
- Rules decided by members who are on equal terms
- Rules are to apply for indefinite future
- Rules applying to every member alike
- Rules decided upon in the absence of a dominant faction

Sources: IEEE, 2023; Gtterbarn et al., 1997; koshiyama et al., 2021; Floridi, 2018

Ethics and Personal Moral Responsibility

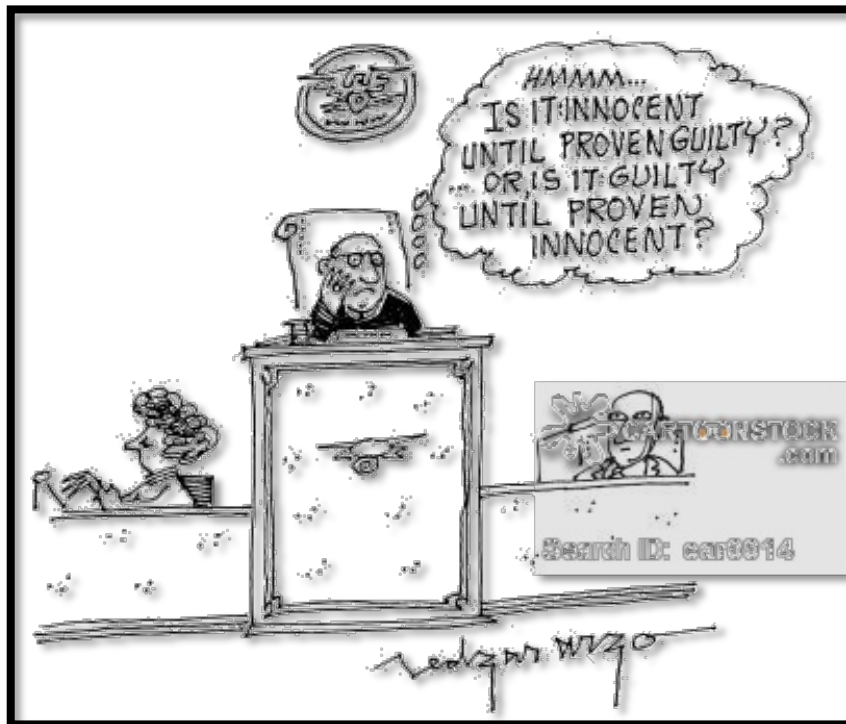
Evolution of theories in digital space has been happening for a while



Sources: IEEE, 2023; Gtterbarn et al., 1997; koshiyama et al., 2021; Floridi, 2018, [Karayev, 2021](#)

Ethics and Personal Moral Responsibility

We are missing the mark



We are asking who's cheating and how to catch them?

We should ask why is this happening and how can we help students make better decisions

Personal Moral Responsibility

Make it explicit!



Ronald Dworkin (2011)

Let's Ignite Integrity Together

Personal Moral Responsibility

Make it explicit – foster a culture of integrity!

Academic integrity is -

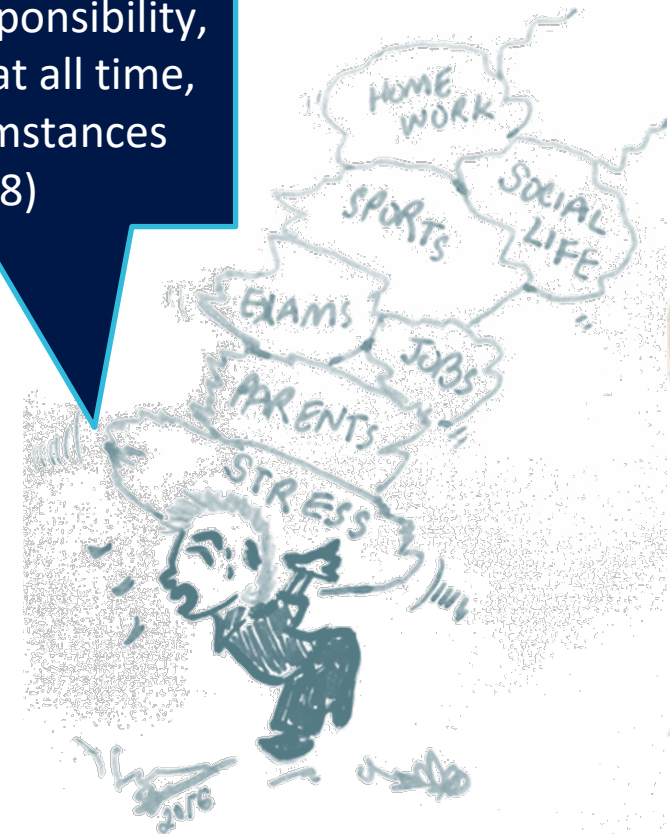
Compliance with ethical and professional principles, standards, practices and consistent system of values, that serves as guidance for making decisions and taking actions in education, research and scholarship



ENAI Glossary

(ENAI, 2018)

Upholding values of fairness, honesty, trust, responsibility, respect, courage at all time, under any circumstances (ICAI, 2018)



Personal Moral Responsibility

Make it explicit – develop understanding among management



“Unauthorised content generation (UCG) is the production of academic work, in whole or part, for academic credit, progression or award, whether or not a payment or other favour is involved, using unapproved or undeclared human or technological assistance”

Foltynek et al.
International Journal for Educational Integrity (2023) 19:12
<https://doi.org/10.1007/s40979-023-00133-4>

International Journal for
Educational Integrity

EDITORIAL

Open Access

ENAI Recommendations on the ethical use of Artificial Intelligence in Education



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⁵ European Network for Academic Integrity, Brno, Czech Republic

⁶ European Students Union, Brussels, Belgium

Rationale

Artificial Intelligence (AI) tools are constantly being released into the public domain. As with all new technological innovations, this brings a range of opportunities and challenges for education: primarily for educators and learners. There is an increasing interest in the academic community and beyond to use Artificial Intelligence in Education (AIED) to generate content. This presents opportunities and challenges for academic and research integrity.

The European Network for Academic Integrity (ENAI) is an international association gathering educational institutions and individuals interested in maintaining and promoting academic integrity. As the use of AI tools may not always be consistent with academic integrity, we consider it important to familiarise all education stakeholders with how to use AI tools responsibly and in accordance with academic integrity practices and values.

ENAI presents a set of recommendations with the aim of supporting academics, researchers and other educational stakeholders, including students' organisations, on the ethical use of AI tools. The recommendations focus on the importance of equipping stakeholders with the skills and knowledge to use AI tools ethically and the need to develop and implement relevant educational policies addressing the opportunities and challenges posed by AIED.



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Personal Moral Responsibility

Make it explicit – develop understanding among staff and faculty


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Academic Integrity Training Module for Academic Stakeholders: IEPAR Framework

Open access | Published: 17 February 2024
Volume 22, pages 9–31, (2024) [Cite this article](#)



Journal of Academic Ethics

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Ethics of Artificial Intelligence in Academia

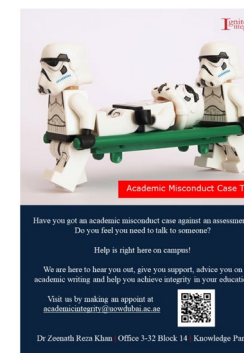
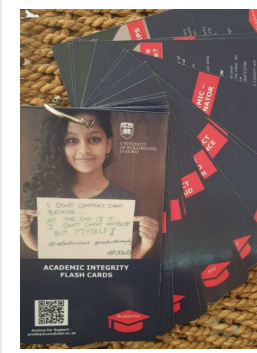
Reference work entry | First Online: 18 February 2024
pp 1551–1582 | [Cite this reference work entry](#)



Second Handbook of Academic Integrity

Develop training/upskilling programs for faculty

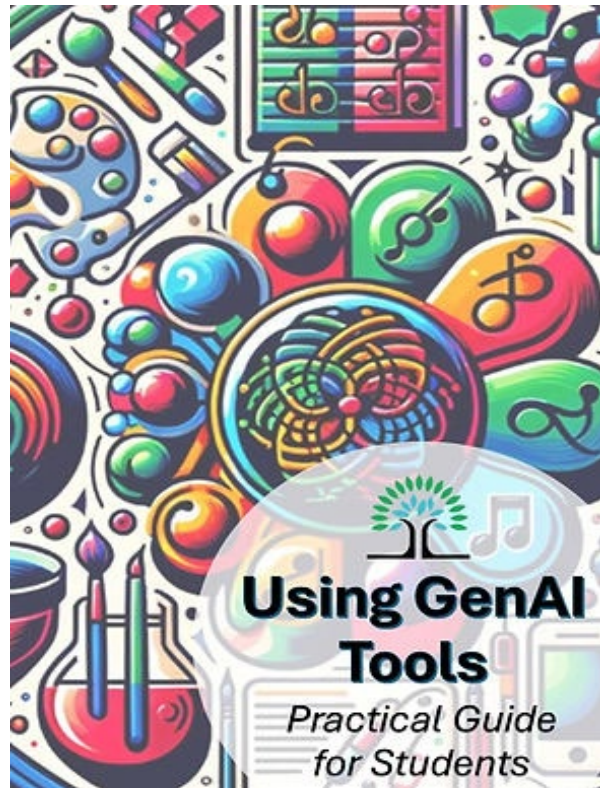
Provide clear framework to guide faculty decision to use generative AI tool



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Personal Moral Responsibility

Make it explicit – develop students' understanding



Practical guide for students when using GenAI tools (Khan et al, 2024)

1	NO AI	The assessment is completed entirely without AI assistance. This level ensures that students rely solely on their knowledge, understanding, and skills. AI must not be used at any point during the assessment.
2	AI-ASSISTED IDEA GENERATION AND STRUCTURING	AI can be used in the assessment for brainstorming, creating structures, and generating ideas for improving work. No AI content is allowed in the final submission.
3	AI-ASSISTED EDITING	AI can be used to make improvements to the clarity or quality of student created work to improve the final output, but no new content can be created using AI. AI can be used, but your original work with no AI content must be provided in an appendix.
4	AI TASK COMPLETION, HUMAN EVALUATION	AI is used to complete certain elements of the task, with students providing discussion or commentary on the AI-generated content. This level requires critical engagement with AI generated content and evaluating its output. You will use AI to complete specified tasks in your assessment. Any AI created content must be cited.
5	FULL AI	AI should be used as a 'co-pilot' in order to meet the requirements of the assessment, allowing for a collaborative approach with AI and enhancing creativity. You may use AI throughout your assessment to support your own work and do not have to specify which content is AI generated.

Scale on the use of GenAI tool in assessments (Perkins et al, 2024)



Personal Moral Responsibility

Make it explicit – make it a campus culture



Don't just talk
about
assessments

Move away from
fixating on grading

Take responsibility



Let's Ignite Integrity Together

Personal Moral Responsibility

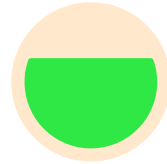
Make it explicit for GenAI!



Respecting Others' Rights:

Data Privacy: Students should be aware of and respect the privacy and intellectual property rights of others when using GenAI tools. This includes not sharing or using personal data without consent.

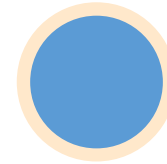
Ethical Use: Students should avoid generating or disseminating harmful, misleading, or inappropriate content using GenAI, respecting the impact their outputs may have on others.



Making Autonomous Choices:

Independent Learning: Students can use GenAI tools to enhance their understanding and creativity, making informed and independent choices about how to utilize these resources in their studies.

Critical Thinking: Encourage students to critically evaluate the outputs of GenAI, deciding when and how to incorporate the generated content into their work responsibly.



Being Accountable for Those Choices:

Ownership of Work: Students should take responsibility for the content they produce with the help of GenAI, ensuring that they properly attribute and acknowledge the use of these tools.

Reflecting on Impact: Students should reflect on the potential consequences of their use of GenAI, understanding their role in maintaining academic integrity and ethical standards.



Ronald Dworkin (2011)

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Takeaways

Upskill

- **Skill requirements:** recognise specific skills needed to use AI ethically.
- **New courses:** propose the development of new courses specifically focused on Gen AI ethics.
- **Training Programs:** develop ways on how academic institutions can integrate AI ethics into their programs.
- **Assessment tools:** introduce evaluation metrics to measure ethical competency.
- **Guideline creation:** draft AI ethics policies at academic institutions.
- **Continuous learning:** emphasize the need for staying updated with AI advancements

Encourage personal reflection: offer strategies for individuals to assess their use of AI.

- **Institutional culture:** discuss the creation of a campus ethos that encourages ethical interactions with AI.
- **Curriculum integration:** explore ways to embed AI ethics into existing courses.
- **Review mechanisms:** have regular reviews of ethical AI practices and policies.

Leverage technology: use AI to spread awareness about its own ethical use.

Open dialogue: advocate for forums and discussions on evolving AI ethical considerations



Concluding Remark



Taking personal responsibility allows students to actively manage their education, fostering academic success and building a strong foundation for lifelong learning



Let's Ignite Integrity Together

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Any questions?