Teacher Guide: AI and Academic Integrity

BSSS

Contents

Introduction

The Office of the BSSS has collated our 2023 published work on academic integrity for teachers into this paper. For more advice about academic integrity, [see the BSSS Website](#). AI plagiarism is not the only concern in discussing academic integrity; traditional plagiarism has, unfortunately, continued to be problematic.

AI and Plagiarism

A key question underlying academic integrity in education and AI is:

Is the use of AI going to affect the validity of the teacher's measurement of the construct being assessed?

Or, more plainly: what knowledge and skills are being assessed and will the use of AI interfere with the student's learning and their ability to demonstrate their learning in a way that is fair – both to the student and to their classmates. If students use AI in ways that misrepresent their learning, that's a problem for equity and for learning outcome. In these situations, teachers and schools will apply the BSSS Academic Integrity Policy.

In the companion student guide, we have asked students to note that this is why teachers, schools, and the BSSS do not accept arguments like "I generated it, so it's my work" or "AI isn't a person, so it's not plagiarism". As teachers, we know that you want to see what students can achieve; what skills they have learned and what skills they still need to work on. Generated content won't help us to see that. This is why the BSSS has amended our academic integrity policies to make sure it is clear that the **unattributed or disallowed use of AI in assessment is a breach of academic integrity and will be subject to penalties in the ACT Senior Secondary System.**

Preventing plagiarism is everyone's responsibility. We know that students may be unused to needing to keep information, undertake validation tasks, or be queried without the hyper-accurate text matching of traditional detectors. The message from the Office of the BSSS is that asking for drafts, setting validation tasks, and querying potential plagiarism are all ways that teachers are dealing with the use of AI while keeping things fair for everyone.

BSSS Academic Integrity – Policy

Definition: Academic Integrity

The principle that students' work is genuine and original, completed only with the assistance allowed according to the rules, policies, and guidelines. In particular, the words, ideas, scholarship, and intellectual property of others used in the work must be appropriately acknowledged.

Work includes not only written material, but in addition any oral, numerical, audio, visual or other material submitted for assessment.

Breaches of academic integrity include plagiarism, collusion, the fabrication or deliberate misrepresentation of data, and failure to adhere to the rules regarding examinations in such a way as to gain unfair academic advantage[1].

Plagiarism – from the BSSS Policy and Procedures Manual 4.3.12

Plagiarism is the copying, paraphrasing, or summarising of work, in any form, without acknowledgement of sources, and presenting this as a student's own work.

Purpose

The purpose of a plagiarism policy is as follows:

- Students know the satisfaction of producing their own work

- Students take full advantage of the learning process

- Students acknowledge the work of others

- Students understand the ethical rights and responsibilities as authors and creators

- Students are aware of how to use information respectfully, ethically, and legally when complying with intellectual academic writing practices (UTS: Library Information Literacy Framework) and all areas of the curriculum

Examples of plagiarism could include, but are not limited to[2]:

- Submitting all or part of another person's work with or without that person's knowledge

- Using AI generative software to substantially research, plan, structure and/or create the text/ image/ artwork. Submitting all or part of a paper from a source text without proper acknowledgement

- Copying part of another person's work from a source text, supplying proper acknowledgement, but leaving out quotation marks or not using italics

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[1] The Australian National University Academic honesty and Plagiarism, viewed 15/11/18
http://www.anu.edu.au/students/program-administration/assessments-exams/academic-honesty-plagiarism
[2] Examples of plagiarism adapted from: Stephen Wilhoit, College Teaching 42, Fall 1994, 161-164

- Submitting materials that paraphrase or summarise another person's work or ideas without appropriate acknowledgement

- Submitting a digital image, sound, design, artwork, artefact, product, photograph, or animation, altered or unaltered, without appropriate acknowledgement.

See: smartcopying.com.au

Principles behind the imposition of penalties:

- Any work that is found to be plagiarised will incur a penalty ranging from a written reprimand and warning, through to the cancellation of all assessment results for Years 11 and 12

- Students who unintentionally plagiarise must be given appropriate counselling and guidance so that they do not repeat the offence

- The impact on unit scores of the penalties imposed for serious and

- repeated instances of plagiarism will be managed in accordance with the Board of Senior Secondary Studies policies.

Note that in the tertiary sector, plagiarism is immediately treated as a breach of the code of conduct and may lead to loss or units and/or expulsion.

Procedures for dealing with situations involving plagiarism:

a) Any suspected case of plagiarism must be investigated at the College level

b) The principles of natural justice must be applied at all stages in the process. Any student suspected of plagiarising work must be given a fair hearing and the opportunity to provide evidence of authorship

c) If there is evidence of plagiarism the student must be interviewed by the teacher and the head of faculty and given the opportunity to explain his/her case before a penalty is determined

d) If plagiarism is shown to have occurred, then the teacher, in conjunction with the head of faculty, Principal or Delegate as appropriate, should determine the penalty, including consideration of the principles and the penalty schedule listed

e) The student must be advised, in writing, of the penalty and informed that s/he has the right to appeal the penalty under the Breach of Discipline procedures of the Board

f) Details of any case of plagiarism must be recorded and the record kept centrally at the College.

Right of Appeal

Students have the right to appeal against the application and/or the outcomes of the above procedures. Refer to Board Policy on Breaches of Discipline in relation to school-based assessment.

Penalties

Any one or more of the following actions could be taken for a breach of discipline in relation to assessment:

a) Reprimand of the candidate, except in cases where the candidate would have derived benefit from such breaches

b) The making of alternative arrangements for the assessment (e.g., through a reassessment)

c) The assessment marked without the material subject to the breach being considered

d) Imposition of a mark penalty appropriate to the extent of the breach

e) Cancellation of the result in the particular component of the college assessment concerned

f) Cancellation of the total college assessment result in the unit/course concerned

g) Cancellation of all the candidate's results for years 11 and 12 in assessments conducted.

The following is a guide to the penalties to be imposed by colleges. These penalties apply irrespective of the unit/subject/course in which the incident(s) occur.

Categories	Penalties
First incident of breach of discipline	One or more of the following penalties to be imposed subject to the degree of the infringement: (a) to (f)
Subsequent breach(es) of discipline	One of the following penalties to be imposed subject to the degree of the infringement and previous breach(es) of discipline: (b) to (g)

Counselling of students is a key component of the process. After the first incident of a breach of discipline, advice in writing to the student must include a warning about the consequences of subsequent breaches.

College Responsibilities

- Inform students about plagiarism and the appropriate ways of acknowledging sources. Positive advice should be offered about how students can avoid plagiarism

- Students need clear instruction about the appropriate use of AI in academic endeavour

- Inform students that any incident of plagiarism will be treated as a serious breach of discipline in assessment

- Inform students of the penalties that may be imposed and the processes to be followed, (including the Appeal process), if an incident of plagiarism is indicated

- Institute practices that will assist in the verification of student work that is completed outside the classroom

- Institute a process whereby any work submitted includes a statement from the student, on each assessment item completed outside class time, to the effect that work presented is his or her own

- Ensure that all new students have advice on how to avoid plagiarism well before their first assessment item is due

- Develop proper recording mechanisms for incidents of plagiarism

- Give advice to teachers on the following aspects, which will complement the Board Policy on Plagiarism:

  o how to support students so that they can demonstrate academic integrity (including teaching referencing skills and being aware of cultural differences)

  o how to detect plagiarism (including the possible use of plagiarism detection software) and to determine reasonable grounds on which accusations of plagiarism might be made (remembering the principle of innocent until proven guilty)

  o how to discuss the issue with students, for example by giving them the opportunity to provide evidence of authorship

  o issues involved in determining appropriate penalties (according to the seriousness of the offence and whether the student has offended previously).

Using AI in assessments

Teacher-directed use of AI

You should give advice clearly in writing -- and in line with the ICT policies in your school and sector -- about what is and is not counted as acceptable use of AI in any specific assessment. Students need to follow the instructions given by the teacher on the assessment task. If a task does not mention AI specifically, this may open avenues for query or appeal; we suggest making it part of your school's normal policy and procedure statements.

To use, or not to use?

The main difference between AI use being penalised or not is whether the use of AI is a substitute for a student's own thinking and technical skills or being used in service of their own thinking. We suggest that students must reference AI use when:

- Any quote or wording taken from AI must be referenced as a direct quote, using the referencing style specified in the assessment sheet
- Any idea developed through AI must be referenced; for example, if a student asked an AI for five ideas for a story in English and used one of these ideas to create their own short story, they need to reflect on and reference this in their rationale. If a student asked an AI to create a proof of concept in a design, technology, art, or textiles course and then built from that, this should be reflected on and written up as part of their final project.

Uses that are prohibited in assessment tasks unless specifically referred to on the assessment sheet and linked by the teacher to learning outcomes desired in the task:

- Any use of AI to scaffold work or provide a structure that eliminates a student's need to understand the text type or skills they are supposed to demonstrate
- Any use of AI to refine or replace wording (e.g., changing original sentence structures)
- Any unacknowledged use of AI

The reliability of generative AI as a source: what is its value?

AI's source value – the validity of using an item generated by AI as a scholarly source – is currently quite low. AI tends to make things up, sometimes referred to as an 'hallucination', as well as tending towards being biased depending on the content it has been trained with. It is unlikely that the AI is going to come up with something as a source that is of any greater use to a student than the corresponding Wikipedia, Stack Overflow, or generally 'googleable' source. Referencing AI as a source for facts is not recommend. The use of AI to find source documents is *highly* dependent on the model.

We do not recommend students including sentences or paragraphs written by generative AI, even if it was referenced, **as in all cases it will not increase their mark or grade** (as it is not their work).

Referencing

Assignment sheets or school policy should clearly explain how AI is to be referenced. We have not specified a particular referencing style, due to the need for different subjects to teach different methods of referencing (e.g., APA, MLA). Generally, one should reference AI as if it is a private conversation. It is a good idea to have students provide transcripts of any AI chats, prompts, or generation sessions used as an appendix to their work, so that any queries about originality can be quickly checked.

Direct References

These will depend on the model you are using and will change as generative AI becomes a more accepted part of academia. You can find a clear citation guide here from Monash University that covers a number of different referencing styles. We recommend using web-based citation guides as these can be updated as the technology changes.

Declarations

Where the assignment has permitted the use of generative AI to scaffold or permitted the student to make use of generative AI more substantially, students should provide a written acknowledgement of how generative AI was used in their work.

Monash University suggests the following scaffold:

I acknowledge the use of [insert AI system(s) and link] to [specific use of generative artificial intelligence]. The prompts used include [list of prompts]. The output from these prompts was used to [explain use].

Monash University, 2023

Students should also include links to, or copies of, conversations with the AI that show clearly which elements of the text were original to the student, and which were generated.

Other Strategies

A practical way to support students to have confidence and belief in their own work and 'voice' is to build a set of strategies into the assignment from the get-go.

For example:

- You may need to allow students to work on the assessment in lesson time, so that you can conference with individuals about their drafting and construction during the lesson.

- Ensure that the plagiarism penalties and expectations are extremely clear in the written information given with the assessment, so that there is shared understanding both of what constitutes plagiarism, and what information needs to be kept by students to facilitate these conversations.

- Consider assessment order – if you need samples of guaranteed AI-free text from students, can these be built into the assessment order? For example, perhaps the first/second task is undertaken under highly controlled conditions, and copies kept in the faculty storeroom so that they can be easily checked if needed.

The plagiarism conversation

A proverb often attributed to the Shona people of Zimbabwe can be roughly translated as follows:

The tree remembers what the axe forgets.

This idea is worthy of consideration when you're confronted with suspected plagiarism and the possibility of a false positive. As teachers, we may encounter hundreds of suspected plagiarists across our careers; unless egregious, it's not usually a particularly memorable experience. For our students, a query from you about their academic honesty might be their first experience of this, and it may be a formative experience of their academic life. Anecdotal evidence from students (e.g., the BSSS Student Forum) is that the idea of being caught in a false positive is terrifying to them, and the thought that a false positive may stick is disheartening.

We need to be mindful that an accusation of suspected plagiarism may be a defining moment in a child's academic career. Treat them with kindness and a presumption of innocence -- no matter how time-consuming going through the academic integrity process is.

AI Detection Software

How do AI detectors work?

AI detecting software works in a variety of ways, most of which are proprietary information, but can be broadly summarised as pattern detection. This pattern may have been deliberately watermarked into the AI generated text by the originating AI, or it could be an artefact of the process of generating AI text.

A **traditional** plagiarism detector is looking for language and/or syntax that comes from text that already exists. This text might be from open access to the internet, closed databases, or depending on the model, the data of other students in the class.

AI detectors **do not work the same way as traditional detectors**. It is very important to understand that they are **not** working with text that already exists. In fact, unlike plagiarism detectors, the current AI detectors on the market do not access source texts to detect inappropriate conduct.

There are several ways that companies detect generative AI:

1. Probability patterns

You may remember from our special interest publications that language-based generative AI is not copying text when it gives answers; it's working out what the probable next word will be based on its training data and using that word. Some providers use these probability patterns to detect generative AI – e.g., if a piece of text uses one or two "most likely" next words, it won't get flagged, but if a very high percentage of the words are "most likely" next words, it will get flagged as generative AI.

2. Pattern matching

Some AI detection models match the syntax and patterns from natural language and compare them to what the AI already knows. For example, GPTZero creator Edward Tian describes these patterns in terms of "perplexity" and "burstiness" – basically, how similar the text is to things that have come before, and how complex sentences used in the text are (Source). Some companies have built up huge databases of human and AI generated text to train their models on, which helps with accuracy; the AI text and human-generated text on the same topic are compared at a large scale, so that markers which are not discernible in an individual instance can be observed as broad patterns across many texts.

3. Watermarked text

This is still in development. Some of the larger providers are working toward different methods of watermarking so that AI generated content can be more easily discerned.

ChatGPT is not an AI detector

Please note that ChatGPT cannot tell you whether it wrote a specific piece of text.

In May 2023, news about a professor in Texas who allegedly asked ChatGPT to tell him if it wrote student work briefly went viral when a user on the social media website Reddit posted a screenshot purporting to show that the professor withheld results from graduating students after saying:

"I copy and paste your responses in this account and Chat GTP [sic] will tell me if the program generated the content." (Source)

This isn't how ChatGPT works. While it told the professor "Yes, I wrote it", that is an example of Chat GTP 'hallucinating' or telling you what is probable rather than true. Remember, ChatGPT is creating text based on what the most probable next word in response to your query is, and that probability is derived from its training data. It doesn't have a memory in the way we're used to seeing in humans, or even in other computer programs.

ChatGPT does not and cannot draw on the content of its past conversations to create new conversations. Each new conversation is generated new, and it doesn't "remember" old conversations. If you want to test it, try it with some text you've written (or some pre-AI text) and ask ChatGPT who wrote it.

Don't end up a viral sensation for all the wrong reasons. This is an egregious example of a false positive, but false positives can show up in more reliable AI generators, too.

In the context of AI text detection, what is a "false positive"?

A "false positive" is when an AI detector picks up text as being AI generated when it was not. A "false negative" in this context is when AI-generated content is not picked up in the course of testing for academic integrity.

Why be aware of what currently makes the potential for false positives? So that you can talk with students about it. Unoriginal, formulaic text won't get them a good result in an assignment, and certainly won't help them in the AST. Encouraging students to break through these barriers, and being open about why work might get flagged, can help normalise the process of needing to affirm that a false positive is, indeed, false.

When speaking to a student about software-detected potential plagiarism, we strongly encourage going in with an open mind and a presumption of innocence.

Reasons for false positives may include:

1. Widely disseminated information from pre-AI forms the basis of the assignment

We're sure you've seen the posts from people saying that they put the US constitution, or parts of the Bible into an AI detector and they came back as AI-generated. While the mechanisms underlying these detectors are not always fully transparent to users, it is possible that detectors flagging widely disseminated pre-AI content are picking up on patterns in the writing that the AI learned from these documents in its training.

Producing one of these documents as a "gotcha" is not a particularly productive activity, but evidence from online message boards indicates that this is a strategy some students will use when challenging AI plagiarism detection. It is completely expected that some of these documents will come back detecting as AI-generated due to their status in training the AI to start with. A more powerful strategy for testing a particular task for false positives is to use text that the user knows for certain isn't AI generated, such as an assignment response written prior to the technology being available.

In either case, acknowledging to the student that you understand the possibility of false positives and explaining that you're using multiple sources of evidence in support of your assessment of their text being AI-generated is advisable.

While it's possible to avoid these kinds of pieces in many subjects, it may not always be possible (e.g., one can't study religious education without religious texts). Consider how your assignments might perform prior to use, and try entering older examples (e.g., from students who are currently in Year 12[3] and completed a similar assignment last year) into the plagiarism checker to see if there is a higher risk of a false positive.

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[3] Current Y12 students should have a data agreement if they are enrolled at your school; otherwise, use an example that you wrote.

2. Formulaic text

Text that follows formulaic writing patterns, for good or ill, may be picked up as AI generated. If you've spent much time with ChatGPT or other writing software, you will be aware that many of the responses are highly structured, using similar sentences and paragraphs.

Unfortunately, some struggling student writers may use formulaic structures, and some disciplines may demand adherence to strict structures. Or for example, in EAL or Languages where students write formulaically as they learn the target language. Turnitin, in their advice to students, suggest that establishing their voice is a helpful way to avoid false positives, or to demonstrate that their work is their own. If a student is convinced that it is their writing style that is prompting a false positive, then experimenting with entering other guaranteed AI-free work from the same student could provide evidence to help in the conversation. This evidence, however, may go either way.

Helping students to move beyond formulaic, procedural text is one of the ACARA General Capabilities (literacy), and vital to students' success in most disciplines. Where students push back against this, referring to the literature of the discipline can be helpful. For example, students who have a strong identity as "not a writer" because they are focussed on STEM subjects may benefit from viewing and discussing complex texts such as journal articles so that they can see how their literacy skills will be used if they choose to take their STEM study further.

3. Error-free text

Text that is completely error-free is sometimes a hallmark of AI, or the (over?) zealous use of a correction tool such as those built into word processing programs, or Grammarly. Sometimes, it is a hallmark of a diligent student who has prepared thoroughly for a task. Use other evidence you've gathered from your work with the student (e.g., in-class tasks, class work) to indicate if this is likely to be an artefact of diligence or AI.

Don't rely on detectors as your only source of information

There are a range of providers on the market claiming to be able to detect AI-generated content. These providers vary in their methods, success rate, and cost, with the two current biggest players being Turnitin and GPTZero. Many smaller players are coming into the market, however, with products of varying quality. Checking reviews, data security, privacy, and accuracy will become key in making the decision to implement these products and tools. Check as well if these providers are using the API[4] of another provider, as this will tell you what software they're powered by.

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[4] API: Application Programming Interface. A type of software interface (way of communication) that allows one piece of software to "talk to" or offer services to another piece of software. Examples might be paying with Paypal (Paypal's API is integrated into the shop you're visiting) or logging into a site with your Apple, Google, or Twitter address.

Australia's preeminent edtech scholar, Leslie Loble AM, noted in her 2022 report *Shaping AI and Edtech to Tackle Australia's Learning Divide* that there are three key considerations when implementing edtech. These are:

- *"the quality of the tools*

- *their effective use and integration into teacher-led instruction*

- *the network of policies, institutions and incentives that shape and govern the wider edtech market." (Loble & Hawcroft,* 2022, p.9*)*

These considerations manifest in questions for teachers as well as systems. What do you know about the quality of AI detectors? What tolerances for false positives are you willing to accept, and how will these work in concert with your instruction of students, and the policies and procedures for plagiarism detection in your school?

At the time of writing, Turnitin's website states that:

"In fact, we are able to detect the presence of AI writing with 98% confidence and a less than one percent false-positive rate in our controlled lab environment." (Source, 12/5/23)

GPTZero has advice about different settings for their product:

- *"At a* [probability] *threshold of 0.65, 85% of AI documents are classified as AI, and 99% of human documents are classified as human*

- *At a threshold of 0.16, 96% of AI documents are classified as AI, and 96% of human documents are classified as human*

We recommend using a threshold of 0.65 or higher to minimize the number of false positives, as we think it is currently more harmful to falsely detect human writing as AI than vice versa." (Source, 12/5/23)

Both tools clearly state that they are intended to be used in combination with other plagiarism detection methods, due to the risk of false positives.

Consider: how many students do you teach, and what would a 1%-4% rate of false positives look like for you in your context? What other information would you need to ensure that you were not missing AI plagiarism, or unintentionally penalising an innocent student?

For example, assuming a 1% false positive rate, if you have 100 students in a course and only one pick up from plagiarism checking software it's likely a false positive. If you have 4 positives in a group of 100 students, there's a 25% chance for each of them that it's a false positive.

In reality the situation can be more dramatic. For example, imagine 200 students, over a semester, produce 600 assessment items that are passed through an AI detector. Also imagine that 1% of students use AI for their assessments, so that of the 600 items, 6 were generated using AI, and 594 were not. If the AI detector is 85% accurate at identifying AI, then it flags 5 of the 6 AI-generated items. But with a false positive rate of 1%, it also flags 6 (1% of 594) of the human-generated items as AI-generated.

So, the majority of AI-flagged items, 6 out of 11 (55%), would actually be false positives in this case.

> If you're not sure how to start a conversation, one way to begin is to ask the student to help you understand why you might have doubts about the authenticity of their work.
>
> - The electronic detector that we use to detect plagiarism has flagged some content in your work. Can you think of any reasons why it might have done so?
>
> - The assessment piece you handed in is quite different to your in-class work/validation task/insert task here. Can you help me understand why that is?
>
> - The structure of your piece uses structures that I get when I enter the same prompts into ChatGPT. Can you help me understand why there might be a similarity here?
>
> - The structure of this sentence appears to be paraphrased with some words changed. Can you help me to understand what's going on?
>
> - When I looked up your quotes/sources, I was unable to find them. Can you show me where they might be found?
>
> Framing as a **question** rather than an **accusation** allows a student to know that you intend to listen to their side of the story, and also requires the student to make a response.

Responding to the student then becomes a matter of offering opportunity for the student to demonstrate their authentic ownership of the work. You may ask the student to:

- show their notes or drafts

- answer verbal questions about the topic or content

- expand on their process of writing the piece

- complete a validation task

If the student admits to the academic integrity breach:

- Support their decision to be honest at this point; they have made a bad/silly/unfortunate choice in breaching academic integrity, but they have been honest now and that's a good step forward.

- Establish if pastoral care support is needed. Students rarely breach academic integrity in a vacuum; often, there is pressure that the student feels unable to control, such as a too-packed schedule, life events, or familial pressure. See the March paper or the Community paper for more details about the pressures that can cause a person to feel that an academic integrity breach is warranted.

- Communicate to them the penalty for the breach (see below for details).

- Communicate where they can find support, particularly if the breach was due to naiveté or accidental. Teacher Librarians are always happy to help students with academic and information integrity. You may also find that the resources on the BSSS Website are helpful: https://www.bsss.act.edu.au/academic_integrity_information

The Plagiarism Conversation: What if the student responds problematically?

If the student responds in a problematic way, it is likely you will need to respond using your school's behaviour protocols. These will take precedence over the more generic advice provided below.

Threats and abusive language are never acceptable. However, in the interest of offering resources, we have compiled some possible responses that a teacher could make to a student displaying problematic behaviours if required in the moment.

Possible Problematic Student Response	Possible Teacher Response
The student becomes belligerent and disrespectful.	Close the conversation - do not continue to argue with a belligerent student. Refer to your school's discipline policies.
	In the moment:
	For some students, naming the emotion can help them to process it.
	"I can see you are feeling upset. How about we talk about this at a time when you've had a chance to think and process?" "I can see that you are feeling frustrated. However, this is a normal part of teaching and learning. If you're unable to speak with me, please book in to talk with the faculty head." "I understand that this might be surprising to you. However, I need you to speak with me in a way that respects us both. If you can't do that right now, let's take a break on this conversation and come back to it tomorrow."
	Managers or experienced teachers assisting a colleague may also wish to add reference to process. For senior students, reminders that school is a workplace can help contextualise the situation and their behaviour:
	"This is [Teacher Name's] workplace. Part of my role is to help make sure that they don't have to hear certain kinds of language in their workplace, so I'm going to ask that we don't continue this conversation now. How about you and I talk about this issue tomorrow once we've all had a chance to think through our responses?"

Possible Problematic Student Response	Possible Teacher Response
	• "This conversation is moving into unproductive discussion, so I am going to put a halt to it for today. There is a process for all academic integrity inquiries, and we're going to work through it. How about you and I step out and talk about what the process is, what evidence you might want to show us, and then set up a time for you to show me the evidence that this is all your own work?" • "I can hear that you're upset about this, but this is [Teacher Name's] workplace, and the way you are speaking to them is unacceptable. You and I are going to go down to the office to talk about the disciplinary penalties for swearing at a staff member." [In this case, deal with the plagiarism separately – be clear that the penalty they're getting is for their poor behavioural choices, and that the academic integrity query will go through the usual channels].
The student blames you for ruining their life, or becomes emotional	Focus on choices, and on how their lives aren't ruined. *You* also have not "ruined their life." Academic dishonesty is a choice the student made. • "This is one event in your academic career. You have made a bad choice, but that doesn't stop you succeeding in other tasks and other units." • "There are academic consequences for some choices. This choice is one where there is a consequence." • "Part of my role as a teacher is to make sure things are fair for everyone. Applying the plagiarism penalty is part of that role." • "I really would like to believe that your work is your own. I'm asking for some more evidence so that we can remove any doubt."
The student states that AI plagiarism detectors are inaccurate.	• "I understand that detectors have a risk of false positives, which is why I've looked at your work myself as well. I still have some questions, and I'm asking you to do the validation task to help me understand why I'm seeing these discrepancies before taking any other actions."

Possible Problematic Student Response	Possible Teacher Response
	• "I'm asking you to help me conclude that this is your own work. This technology is new to all of us, and even though detection is still developing, for fairness and equity I need to know for sure that this work is yours." • "Everyone has the same rules applied to their work; I've asked all the people who the detector picked up as being AI-generated to bring in their study notes. I've also considered the student work not highlighted by the software. I'm hoping that this is all a false positive, but for equity, I have to be certain."

It is also worthwhile keeping an eye out for what various AI detection platforms are publishing. For example, Turnitin has easy-to-understand advice sheets for both teachers and students, including advice about the detection of false positives and how to deal with them.

Drawing on an external source for "how to deal with false positives" can help students to understand that it's normal in an academic context to check for plagiarism (i.e., not just something that happens in your school or your classroom), and that the new AI tools that are being released onto the market require new approaches.

When the student does not accept the penalty: School Appeals

A school appeal comes after other avenues at the school have been exhausted. If an appeal about AI plagiarism raises to the level of a school appeal, it's important to have **evidence** that the committee can see that demonstrates what has occurred prior to the school appeal.

The student first must query with the teacher and the head of faculty before a school appeal can be raised. It is a good idea to ensure that a Deputy, Head of Studies, or similar teacher is **not** involved in the initial stages of the query, so that they can be involved in the next steps.

The below information is intended to help you avoid a school appeal, or if it's unavoidable, to know what kinds of evidence you might provide to help the panel deliberate on their decision.

Preparing for a School Appeal

You need to gather evidence so that the appeal panel can see it. This is best done as you go through the process. This advice has been specifically put together in the event of an appeal against an academic integrity penalty for the use of AI; not all of these factors will apply in other appeals.

Before the task was handed in

What happened in constructing the task? For example:

- How were vulnerabilities against AI accounted for in the task design?

- What controls were in place (see BSSS March AI paper)?

- What "line of sight" did you have to the student's originality? Drafts? Proposals? Workshopping?

What did the student know before they handed in? For example:

- Was the use of generative AI expressly forbidden in the task and/or was there reference to academic integrity policies?

- Did the student know that if AI plagiarism was suspected, they might need to produce notes or undertake a validation task?

- Where AI was acceptable in the task, what parameters were set out? For example, Monash University clearly sets out parameters for the use of AI.

- Did the student know that false positives are normal, and part of maintaining equity for everyone is the investigation of any false positives?

What evidence do you have of this? For example:

- Cover sheet

- Assignment description/sheet

- Unit Outline

- Academic handbook

- Record of student attendance at an academic integrity seminar

- Record of lessons delivered about disciplinary literacy/use of AI (e.g., classwork, program of learning, posts on your learning management system, digital presentations from the class)

Once the task was deemed plagiarised

What is the evidence for the task being plagiarised?

- Mismatch between quality of student work in formative and summative assessments

- Significant similarities between student responses that cannot be explained by context

- Student self-report (e.g., talking in the library or another class about having cheated on a task) or peer reporting about another peer (use with *extreme* caution)

- Mismatch between knowledge and understanding demonstrated in class and in hand-in work

- Misuse of language indicating lack of understanding of vocabulary and material

- Inconsistent use of language indicating appropriation of multiple sources

- Not written in the student's voice

- AI-detection software flags content

- Student inability to recall references or research undertaken

- References do not exist/cannot be located in a real document (this is symptomatic of AI "hallucinating" references) and student is unable to demonstrate where they were drawn from

- Validation task demonstrates significant difference that cannot be explained by change of form

- Student inability to demonstrate drafting or notes for the task

- Student confesses to the use of AI

- Unsourced quotations and paraphrases (not AI, but can be part of a plagiarised piece)

Ideally, **before a conversation about plagiarism occurred**, you will have had at least 2-3 of these pieces of evidence to support your point of view. Remember that even the makers of AI plagiarism detectors acknowledge the possibility of false positives. **Don't rely solely on AI plagiarism detectors**.

What evidence do you have of the plagiarism? For example:

- Class work that the student has completed

- AI generation report

- Email from a colleague documenting the student speaking about using AI for the task

- Deidentified copy of highly similar student work

- Copy of student work with misused/inconsistent sentences highlighted

What happened in the decision about applying the penalty?

- Was the student given a chance to explain their situation?

- What validation task was given? For example, interview, supervised writing, test?

- Which of the BSSS penalties were given, and why?

- Has the letter confirming the penalty and decision gone to the student?

What evidence do you have of this? For example:

- Meeting minutes or notes

- Copy of the letter to the student outlining the plagiarism penalty and reasons for it

- If a written validation task was given, copy of the written validation task

- If a verbal validation interview was given, notes from the interview

- Evidence from an observer to the process (e.g., a pastoral care teacher who attended the interview)

Once the student queried the penalty

What happened in the query of the penalty?

- What evidence did the student present to challenge the penalty?

- What decision was given to the student by the teacher and head of faculty?

- Why was that evidence deemed insufficient?

What evidence do you have of this?

- Photocopy/scan of the students' evidence

- Copy of the head of faculty's letter to the student (as per P&P)

- Meeting notes or emails between teacher and head of faculty

- Notes or emails if an external person was asked to review the penalty

In a school appeal, you (the teacher) will be asked to speak with the appeal team. This will be three people – two from your school, and one external person. Keeping good records can help you to explain your point of view and help the appeal team make a decision that is fair and equitable for all involved.

What is a Board Appeal?

A Board Appeal occurs when all avenues at the school have been exhausted, and there is evidence that policy and procedure have been applied incorrectly. Board Appeals are very rare.

To launch a Board Appeal, the student must write to the Executive Director. The Executive Director will determine whether to hear the appeal, i.e., whether the appeal has merit. Board appeals will not go ahead if the prior steps have been skipped.

If the appeal goes ahead, you will be told when it will be heard and asked to give the same kind of evidence that you gave in the school appeal.

Planning a task: Academic Integrity vs. Authenticity

Key recommendations:

- Plagiarism and other forms of academic dishonesty are unacceptable
- A variety of task types are needed to enable students to demonstrate their learning against the achievement standards
- Academic Integrity is part of the Quality Assessment Guidelines, but it is not the only factor to consider in planning work
- Controls may take the form of physical/technological or social/cognitive

- In ACS markbooks, assessment item results in the same column need to be directly comparable. For this reason, it is a good idea to ensure that tasks being directly compared are undertaken with the same controls. This is especially important in T units.
- Students must have confidence that plagiarism controls will be fairly applied. It is not acceptable to ignore low-level plagiarism or apply these controls only in some classes and not others.

Cheating and academic dishonesty are old problems. Students share papers, pay tutors or ghost writers, have very keen and helpful parents/friends, and mix-and-match paraphrase. No matter whether it is analogue or digital, students presenting plagiarised work as their own is a big problem, because teachers in the ACT Senior Secondary System are certifying that students have certain skills and knowledge – not only to the student, but to the community. The grades that go on the senior secondary certificate are the grades students walk away with. There is a great deal of responsibility placed on teachers in the ACT senior secondary system to ensure the integrity of their marking; a system that has worked well for almost 50 years.

The interplay between academic honesty and authentic assessment can be reflected on by considering whether the risk to academic integrity outweighs the benefits of an authentic task.

On one end of the spectrum, tightly controlled assessments such as exams, quizzes, and standardised tests can be used to ensure academic honesty. These assessments are typically administered under strict conditions, such as in an invigilated testing environment, with limited access to external resources and time constraints. While tightly controlled assessments may be effective at deterring academic dishonesty, they may not be as effective at assessing a student's ability to apply their knowledge and skills in real-world situations.

Authentic assessments, on the other hand, may better align with the skills and knowledge required beyond school such as in the workforce or other real-world settings, but may be more challenging to ensure academic honesty. Projects, case studies, and real-world scenarios may not be as tightly controlled, but they offer opportunities for students to demonstrate their knowledge and skills in more applicable and realistic ways. These types of assessments often require students to research, work collaboratively with others, think critically, problem solve, and apply their knowledge in a context that more closely resembles life after school.

	High Academic Integrity Controls	Moderate Academic Integrity Controls	Low Academic Integrity Controls
High Authenticity	Ideally the task is authentic, and the authenticity lends itself to students creating the work without need or opportunity for academic dishonesty.	In this instance, it is likely that the teacher and school have balanced the opportunity for high authenticity against the academic integrity controls available.	The teacher and school need to balance the risk of the low academic integrity controls against the value of a high authenticity task.
Moderate Authenticity	In this instance, it is likely that the teacher and school have balanced the need for high academic integrity with a modified authenticity to the task.	In this instance, the teacher and school have balanced the authenticity and academic integrity to create a best fit for the subject and task.	Inadvisable: without the trade-off of high authenticity, it is unlikely that the low integrity of the task will be balanced by the authenticity of opportunity.
Low Authenticity	The teacher and school need to balance the opportunity cost of prioritising academic integrity against the authenticity of the task.	Not acceptable. Likely to be accidental – the opportunity cost of low authenticity is not balanced by the moderate academic integrity controls.	Not acceptable. Likely to be accidental – it would be extremely unusual for a teacher to intentionally create a low integrity, low authenticity task.

It's important to find a balance between academic honesty and authentic assessment, based on the learning outcomes, instructional goals, and context of the course. It's also important to consider the entirety of the conditions of a task; for example, a pre-prepared oral presentation can easily be vulnerable to AI. The Quality Assessment Guidelines provide a framework for teachers in the ACT Senior Secondary System to use when planning assessment to meet requirements of integrity and authenticity. You can find the guidelines here.

Task conditions and academic integrity controls

Most of the discussion about AI plagiarism has been about restricting student capability to use AI to plagiarise. The way that this will be done by most teachers is by controlling the task conditions. We have split controls into physical/technological, and social/cognitive. These controls should be used as part of a whole-school strategy to deal with the cheating "capability jump" given by generative AI.

However, controls will be different in different subject areas and **must not** be used to restrict the kinds of tasks students can complete. Research tasks, creative tasks, and hand-in tasks of all kinds are still valued and valuable, and most already have strong controls already in place.

Physical or technological controls

Control	Examples
No access to technology	- Supervised handwritten task - Spontaneous non-technological task such as interview, no-phone debate, improvised performance - Task where technology is irrelevant such as some artworks, drama performance, sporting, or outdoor education tasks "Unplugged" assessment days/incursion for completing tasks from start to finish - Controlled physical conditions, e.g., painting *en plein air*
No access to internet	- As above, plus - Lockdown-type browsers under supervised test conditions (lockdown browsers are useless if students still have phones or other methods of collusion) - Removing internet functionality under supervised conditions (e.g., turning off wifi, off-campus testing in a mobile/wifi blackspot)
Software	- Moment-to-moment recording (e.g. proctoring software, document software that records what a student types so that drafts can be checked, such as Google Docs and the browser extension "draftback", recording functions on art software Procreate) - Text-matching or other anti-plagiarism software - Coding by AI companies that allows AI-generated text to be digitally watermarked

Social or Cognitive Controls

Control	Examples/explanation
Know your students	• The strongest social control is to know the students you are teaching as individuals and what their work is like
Validation tasks	• Can be performed under controlled conditions to affirm student understanding. Be mindful of the relative weightings and the potential for the parameters (e.g., test vs assignment) to affect students outside of the assessment construct
Check-ins and points to ensure that you are aware of how the student has constructed the work	• Informal or formal interviews • Using Virtual Learning Environment to "snapshot" drafts • Class discussion and drafting In-class research undertaken that will be reported on (e.g., experimentation, literature review) • In-class construction of a work (e.g., art, woodwork, fashion, drama, choreography) to observe the process of design and construction
Marks assigned to parts of the preparation and drafting	• Drafting scaffolds that are marked during the process • Use of tasks such as annotated bibliography as part of the task
Explicit teaching of discipline-specific academic integrity information	• Modelling from high-quality sources in your discipline • Modelling how quotes and sources are used to place students' work in the discourse of your discipline – ensure they know the positive elements of the use of sources, not just the litigious elements • Clarity and specificity in rules for the course and assessment: e.g., MIT's programming course has clear rules about what is acceptable and unacceptable collaboration
Clarity about the penalties for academic misconduct and consistent application of those penalties	• Whole-school education about plagiarism • Consistent application of penalties in all classes by all teachers • Use of text-matching software or similar software to pick up facile cheating • Consistent messaging about the ethics of plagiarism

Control	Examples/explanation
Use of AI as a fundamental task element	- Critiquing or refining an output generated by AI (e.g., an essay, piece of code, artwork) to demonstrate the students' subject mastery - Use of an AI output to form part of a response in a critical or analytical way (e.g., AI generated art used as part of a broader work commenting on humanism) where that output does not take the place of a student's independent thought or demonstration of their understanding of course content and goals - Use of AI to create an essay scaffold, with the essay itself written longhand/under supervised conditions

Preventing Plagiarism: Why do people cheat?

The world of fraud may provide a sense of what might be at play here, and ways to plan risk mitigation. Holden et al did this in 2021 in their literature review about academic integrity, online examinations, and cheating, referring to the established concept of the "fraud triangle" as providing an underlying paradigm for understanding cheating. Wolfe and Hermanson (2004), however, suggest an update to the "fraud pyramid" to make it into a "fraud diamond" – this is relevant to AI in Senior Secondary Education, because the fourth point of the diamond – *capability* -- is the factor that has changed for most students.

Wolfe and Hermanson conceptualise the points of the diamond as such:

> *"Incentive: I want to, or have a need to, commit fraud.*
> *Opportunity: There is a weakness in the system that the right person could exploit. Fraud is possible.*
> *Rationalization: I have convinced myself that this fraudulent behaviour is worth the risks.*
> *Capability: I have the necessary traits and abilities to be the right person to pull it off. I have recognized this particular fraud opportunity and can turn it into reality. (Wolfe and Hermanson, 2004)"*

Consider how this might apply to cheating and plagiarism.

Incentive

Bureau et al (2021) note a range of incentives for cheating. These may be impulse/sensation seeking, personality traits, social factors (e.g., perception that other students are cheating), institutional factors (e.g., students know that teachers do not punish plagiarism), or even the severity of parental discipline.

It's not difficult to see that a major incentive for student cheating in the ACT is to improve their grades, scores or rank due to a perception that this will give them an advantage in life. Pressure also may come from:

- Procrastination
- Prioritisation (e.g., prioritising video games or socialisation over assessment work)
- Disengagement with the topic or idea
- Identity factors such as imagined identity (e.g., a student who feels that they "can't fail" a task because it will be damaging to their identity as an intelligent person)
- Social factors such as fitting into a social group
- Perceived or actual lack of consequences for cheating
- Self-perceived or actual lack of skill
- Self-perceived or actual expectations from family
- Self-perceived or actual pre-requisites for tertiary/workforce opportunities
- Circumstances outside the student's control (e.g., anxiety, life events, caring responsibilities).

Once the incentive becomes overwhelming, the student may feel pressured to cheat.

Opportunity

Opportunity to cheat may be assisted by:

- technology (e.g., generative AI, cut and paste)
- procedures (e.g., having the same assessment tasks year-in-year-out despite knowing the work is out there in the school community)
- social connections (e.g., the student having contact with a person who enables cheating)
- poor information security (e.g., tests left on desks or left on photocopiers, everyone knows you take your questions from old exam papers)

Once the opportunity becomes salient to them, the student may feel that they have impetus to cheat.

Rationalisation

This is how the person explains their cheating to themselves.

This may be:

- a social reason – e.g., "everyone else is doing it", "xyz source said this particular action isn't cheating" "knowledge wants to be free, and it belongs to everyone"
- a philosophical reason – e.g., "it doesn't matter" or "in my planned profession this is the norm"
- a lack of trust in the conditions of the task – e.g., "if I don't cheat, I'll be disadvantaged, because everyone else is cheating"
- or in the case of unintended plagiarism, the rationalisation may be a misunderstanding or false belief that the action is not cheating
- there may be another form of unintended plagiarism from students of cultural backgrounds where the concept of sourcing is dealt with differently to that in Western academia (Grey et al, 2019). This does not excuse plagiarism, but it does emphasise the salience of ensuring understanding of plagiarism for students who may not have encountered the idea in previous studies.

If a student can rationalise their behaviour in a way that reconciles with their moral or academic schemas, they may feel able to cheat without guilt or qualms.

Capability

This is the area that has had the largest change in the world of generative AI. Where previously students may have doubted their capability to cheat without detection, the introduction of generative AI has changed that doubt. This is, perhaps, partly because media organisations around the world have reported with increasing degrees of anxiety about the ability of generative AI to make even the least capable student seem to be a genius.

It is very easy to log onto a generative AI and ask it questions to finesse a response. If a student feels that they have the capability to cheat without detection, they may choose to cheat.

Reflecting on reasons for plagiarism

Incentive:

- Do your students understand the purpose of the assessment?
- Are students engaged in the work?
- Do your students have appropriate special provisions if something in their life is affecting their ability to complete the work?
- Where are students placing their sense of self-worth or achievement?

Opportunity:

- Do you habitually ignore low-level plagiarism?
- Are copies of tests or answers "in the wild"?
- Are websites or tutors in your local community targeting your assessment tasks? (e.g., past students offering to sell essays, older siblings or friends offering to give copies to current students)
- With the increase in the use of Virtual Learning Environments (e.g., Canvas, Google Classroom, Moodle), do students understand that you have easy access to past work to check for repeat plagiarism?

Rationalisation:

- Do the students understand the connection between completing this task and their goals in the class or discipline?
- Do the students understand what constitutes plagiarism in your discipline, and in this task?
- How have you discussed and taught ethics to your students?
- Does your school have a common ethical framework or values statement that remains consistent between classes?
- How have you helped students to feel confident that by not cheating they will not be disadvantaged?
- Do students think they will be fairly assessed in this task? If not, how can you fix that?
- Are your students aware of myths about plagiarism (e.g., "it's okay to change a few words" or "less than 10% of a quote doesn't need to be sourced") and the counteraction to them?

Capability:

- Might students believe they are capable of cheating in this task with a strong chance of not being caught?
- Why might they believe that? What controls can you put in place?
- Are you aware of what is possible using generative AI and other sources?
- How are you communicating this awareness and your own strong computer literacy to your students?

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