

# The Use of AI-Detection Tools in the Assessment of Student Work

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## Abstract

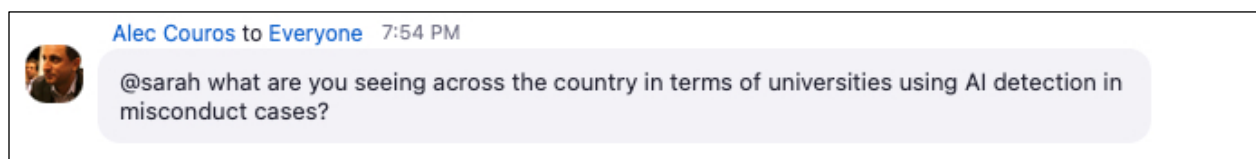
In this commentary I offer guidance on how to approach the use of plagiarism detection, with a focus on text generated by artificial intelligence. I include a discussion of the impact of false allegations on student mental well-being.

Keywords: academic integrity, academic misconduct, academic dishonesty, academic cheating, plagiarism, artificial intelligence, large language models, ChatGPT, Gen AI, detection, false accusation, false allegation, allegation, policy, mental health, mental well-being.

People have been asking if they should be using detection tools to identify text written by ChatGPT or other artificial intelligence writing apps. Just this week I was a panelist in a session on “AI and You: Ethics, Equity, and Accessibility”, part of [ETMOOC 2.0](#). Alec Couros asked what I was seeing across Canada in terms of universities using artificial intelligence detection in misconduct cases.

## Figure 1

Screenshot of a comment by Alec Couros during ETMOOC 2.0



The first thing I shared was the University of British Columbia web page stating that the university was not enabling Turnitin’s AI-detection feature. UBC is one of the few universities in Canada that subscribes to Turnitin.

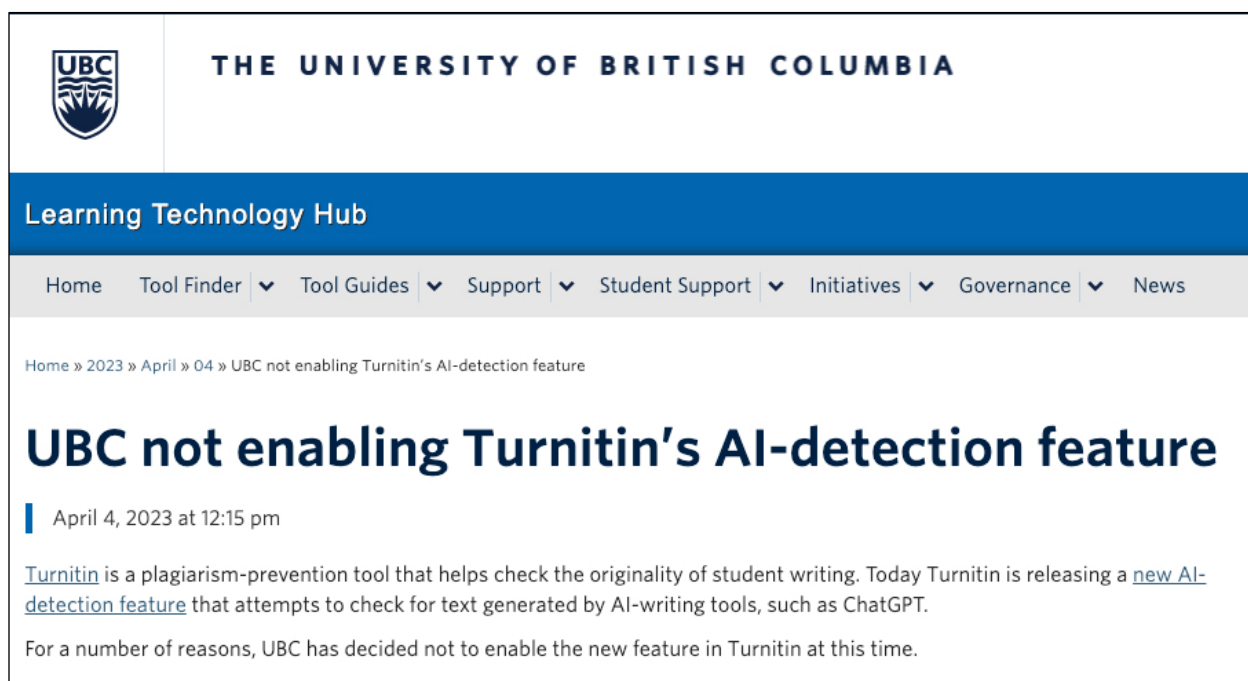
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## Figure 2

Screenshot from the University of British Columbia website



The University of British Columbia declares the university is [not enabling Turnitin's AI-detection feature](#).

Turnitin's rollout of AI detection earlier this year was widely contested and I won't go into that here. What I will say is that whether AI detection is a new feature embedded into existing product lines or a standalone product, there is little actual scientific evidence to show that AI-generated text can be effectively detected (see [Sadasivan et al., 2023](#)). In a [TechCrunch article](#), Open AI, the company that developed ChatGPT, talked about its own detection tool, noting that its success rate was around 26%.

**Key message: Tools to detect text written by artificial intelligence aren't really reliable or effective. It would be wise to be skeptical of any marketing claims to the contrary.**

There are news reports about students being falsely accused of misconduct when the results of AI writing detection tools were used as evidence. See news stories [here](#) and [here](#), for example.

There have been few studies done on the impact of a false accusation of student academic misconduct, but if we turn to [the literature on false accusations in criminal offences](#), there

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is evidence showing that false accusations can result in reputation damage, self-stigma, depression, anxiety, PTSD, sleep problems, social isolation, and strained relationships, among other outcomes. Falsely accusing students of academic misconduct can be devastating, including dying by suicide as a result. You can read some stories about students dying by suicide after false allegations of academic cheating in [the United States](#) and in [India](#). Of course, stories about student suicide are rarely discussed in the media, for a variety of reasons. The point here is that false accusations of students for academic cheating can have a negative impact on their mental and physical health.

**Key message: False accusations of academic misconduct can be devastating for students.**

Although reporting allegations of misconduct remains a responsibility of educators, having fully developed (and mandatory) case management and investigation systems is imperative. Decisions about whether misconduct has occurred should be made carefully and thoughtfully, using due process that follows established policies. It is worth noting that AI-generated text can be revised and edited such that the end product is neither fully written by AI, nor fully written by a human. At our university, the use of technology to detect possible misconduct may not be used deceptively or covertly. For example, we do not have an institutional license to any text-matching software. Individual professors can get a subscription if they wish, but ***the use of detection tools should be declared in the course syllabus***. If detection tools are used *post facto*, it can be considered a deception on the part of the professor because the students were not made aware of the technology prior to handing in their assessment.

**Key message: Students can appeal any misconduct case brought forward with the use of deceptive or undisclosed assessment tools or technology (and quite frankly, they would probably win the appeal).**

If we expect students to be transparent about their use of tools, then it is up to educators and administrators also to be transparent about their use of technology prior to assessment and not afterwards. A technology arms race in the name of integrity is antithetical to teaching and learning ethically and can perpetuate antagonistic and adversarial relationships between educators and students.

### **Ethical Principles for Detecting AI-Generated Text in Student Work**

Let me be perfectly clear: *I am not at all a fan of using detection tools to identify possible cases of academic misconduct*. But, if you insist on using detection tools, for heaven's sake, be transparent and open about your use of them.

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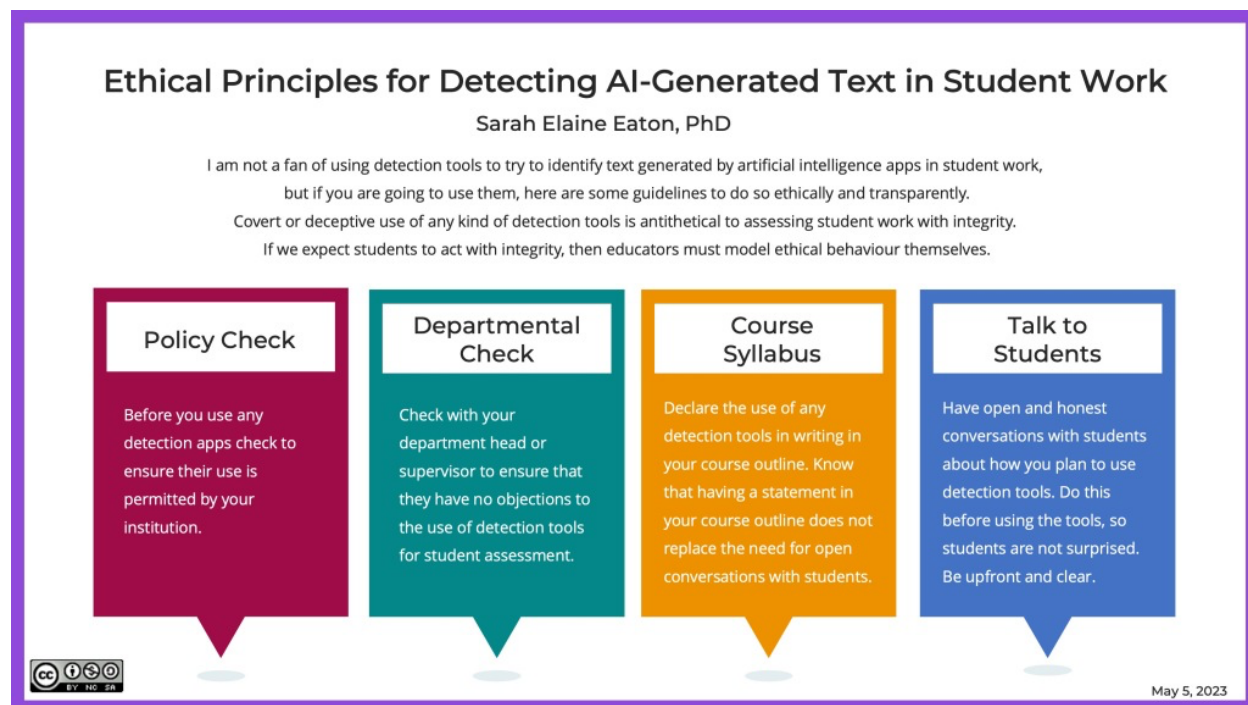
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Here is an infographic you are welcome to use and share: Infographic: “Ethical Principles for Detecting AI-Generated Text in Student Work” (Creative Commons License: Attribution-NonCommercial-ShareAlike 4.0 International). The text inside the infographic is written out in full with some additional details below.

**Figure 3**

Infographic: “Ethical Principles for Detecting AI-Generated Text in Student Work”



Here is some basic guidance:

### Check your Institutional Policies First

Before you use any detection tools on student work, ensure that the use of such tools is permitted according to your school’s academic integrity policy. If your school does not have such a policy or if the use of detection tools is not mentioned in the policy, that does not automatically mean that you have the right to use such tools covertly. Checking the institutional policies and regulations is a first step, but it is not the only step in applying the use of technology ethically in assessment of student work.

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## **Check with Your Department Head**

Whether the person's title is department head, chair, headmaster/headmistress, principal, or something else, there is likely someone in your department, faculty or school whose job it is to oversee the curriculum and/or matters relating to student conduct. Before you go rogue using detection tools to catch students cheating, ask the person to whom you report if they object to the use of such tools. If they object, then do not go behind their back and use detection tools anyway. Even if they agree, then it is still important to use such tools in a transparent and open way, as outlined in the next two recommendations.

## **Include a Statement about the Use of Detection Tools in Your Course Syllabus**

Include a clear written statement in your course syllabus that outlines in plain language exactly which tools will be used in the assessment of student work. A failure to inform students in writing about the use of detection tools before they are used could constitute unethical assessment or even entrapment. Detection tools should not be used covertly. Their use should be openly and transparently declared to students in writing *before any assessment or grading begins*.

Of course, having a written statement in a course syllabus does not absolve educators of their responsibility to have open and honest conversations with students, which is why the next point is included.

## **Talk to Students about Your Use of Tools or Apps You will Use as Part of Your Assessment**

Have open and honest conversations with students about how you plan to use detection tools. Point out that there is a written statement in the course outline and that you have the support of your department head and the institution to use these tools. Be upfront and clear with students.

It is also important to engage students in evidence-based conversations about the limitations tools to detect artificial intelligence writing, including the current lack of empirical evidence about how well they work.

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## Conclusion

Again, I emphasize that I am not at all promoting the use of any AI detection technology whatsoever. In fact, I am opposed to the use of surveillance and detection technology that is used punitively against students, especially when it is done in the name of teaching and learning. However, if you are going to insist on using technology to detect possible breaches of academic integrity, then at least do so in an open and transparent way — and acknowledge that the tools themselves are imperfect.

**Key message: *Under no circumstances should the results from an AI-writing detection tool be used as the only evidence in a student academic misconduct allegation.***

I am fully anticipating some backlash to this post. There will be some of you who will object to the use detection tools on principle and counter that any blog post talking about how they can be used is in itself unethical. You might be right, but the reality remains that thousands of educators are currently using detection tools for the sole purpose of catching cheating students. As much as I rally against a “search and destroy” approach, there will be some people who insist on taking this position. This blog post is to offer some guidelines to avoid deceptive assessment and covert use of technology in student assessment.

**Key message: *Deceptive assessment is a breach of academic integrity on the part of the educator. If we want students to act with integrity, then it is up to educators to model ethical behaviour themselves.***

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NB: This commentary was first published on my blog: <https://drsaraheaton.com/2023/05/06/the-use-of-ai-detection-tools-in-the-assessment-of-student-work/>

It has been reproduced in its entirety, with some updates to formatting.

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