



# Interpreting Turnitin's AI Writing Report

# Overview of AI report in Turnitin

You will find the AI report indicator on the same panel as the Similarity report. It is **only visible to the instructor** and will not show in students' reports. Minimum paper size to trigger the AI report is 300 words of prose text (e.g., not poetry or a text in metrical structure) in a long-form writing format.



Similarity score and report are separate to the Al indicator and report.

The AI indicator shows a %. This is a % of the long-form text that may be AI generated.

This is an indicator only and must be supported by other evidence - see interpreting the results pg.2



Blue, between 0 and 100% - a successful run. An asterisk (\*) will be displayed if 20% or below, to signify higher likelihood of false positives.



The submission couldn't be processed because of:

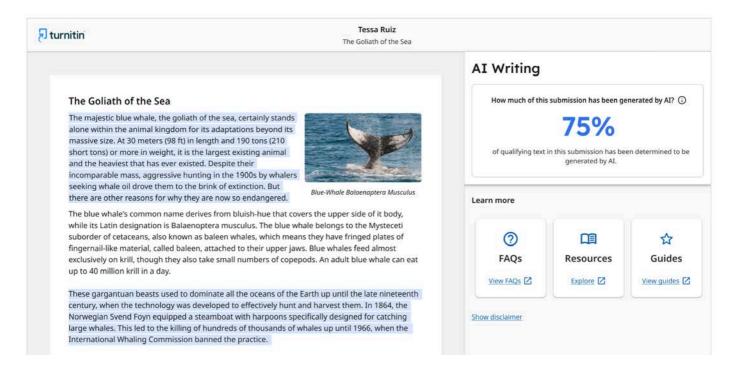
- File size (must be up to 100MB)
- Word count (must be between 300 and 15,000)
- Wrong extension (must be .doc, .pdf, .txt or .rtf)



Turnitin failed to process the submission. Please try again later. If all file requirements are met (see above) but no report is forthcoming, please get in touch with the IT so that they can reach out to Turnitin to investigate on your behalf.

The Similarity Report panel includes the **new Al Indicator** 

To view the report, click on the Al indicator to open the Al writing report. Text in blue is likely Al with the % representing the amount of long-form prose that is likely Al generated (not the % of the whole document). The text around the blue may also be Al generated. The report should be considered as one 'indicator only' of possible Al use.







# What to look for while interpreting the results

### Check the document size

Longer is better, but there should be a minimum of 300 words of prose and up to 15,000 words of prose (long-form writing e.g. individual sentences contained in paragraphs that make up a longer piece of written work, such as an essay, a dissertation, or an article, etc.)

The detection tool **DOES NOT** reliably detect Al-generated text in the form of:

- Poetry
- Scripts
- Code
- Bullet points
- Tables (although it can be detected if meets the criteria of the minimum word count and contains prose text in a long-form writing format)
- Annotated bibliographies.

PowerPoint files do not work well with Turnitin in practice, please advise your students to <u>convert them into Word document</u> for submission into Turnitin or use Blackboard assignment instead of Turnitin.

### Threshold score

**Look for a score above 20%** or a higher score preferably 30% or above. These percentages take into consideration the possibility of false positives (see more <a href="here">here</a>). A score below 20% should trigger a conversation with the student. It should not automatically trigger an allegation of a breach of academic integrity. A score above 20% and particularly above 30% requires a closer look for additional indicators. If there are sufficient secondary indicators, then proceed with an allegation of a possible breach of academic integrity.

### Additional Indicators

Focus on the highlighted areas, but also the areas of text immediately around the highlighted areas, for any obvious issues. Look for the following indicators:

The text has a grey background.

The text includes the prompt / prompt response e.g. "Certainly! Here is . . . "

Inconsistent or unusual language (misuse or odd use of words, repetitive use of words or phrases, foreign spelling).

Inconsistent of unusual formatting (font type or size, line spacing, text justification etc.).

Incorrect information, incorrect or non-existent references, lengthy quotes, or lack of citations when evidence / arguments are presented, in-text citation doesn't match reference listing, or reference list mistakes.

Any document flags for text manipulations, such as white space, hidden text or replaced characters (these are highlighted in flags in the similarity report).

Document properties have very short edit time (less than 10 minutes) and low number of revisions (1 to 2).

**NOTE:** The use of text editing tools such as Grammarly, particularly Grammarly Go, can be detected as Al generated text. Grammarly Free, Grammarly Premium and Grammarly Go all have Al functionality. If you are concerned about document properties, ask the student to share their earlier drafts in word format.

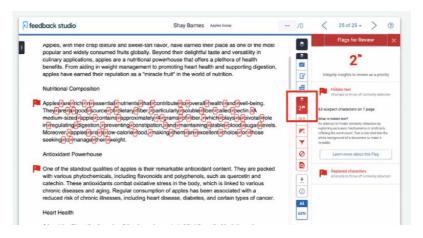




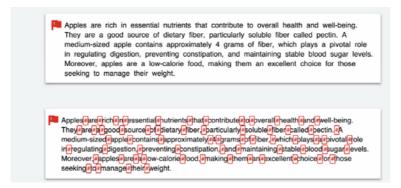
## Additional indicator examples

As with any investigation of breaches of academic integrity it is important to gather the evidence. As Turnitin's AI detection is not 100% accurate you need to identify additional indicators. Here are some examples. Look at the flags in Feedback Studio.

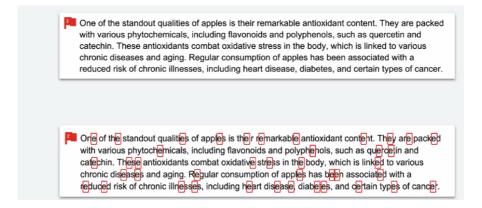
Text manipulations.



**Hidden text** is when a student adds invisible (e.g., white) characters between words to make the text un-checkable:



**Replaced characters** is when a student replaces the characters of Latin (English) alphabet with the same looking letter from another alphabet (e.g., Cyrillic) – Turnitin stops recognising the words as English and so cannot detect AI or similarity score:







**Unusual/awkward language** – the paragraph on the bottom is AI, and the one on top is a student's attempt to change enough not to get caught:

A heart-healthy option is apples. It has been demonstrated that the antioxidants in apples, exceptionally quercetin, lessen blood pressure and drop the risk of cardiovascular disease. Moreover, apple pulp lowers cholesterol intensity by tethering to fatty molecules and obstructing bloodstream absorption. These pieces work in tandem to make apples a useful friend in conserving a fit heart.

Apples are a heart-healthy choice. The antioxidants in apples, particularly quercetin, have been shown to lower blood pressure and reduce the risk of cardiovascular disease. Additionally, the fiber in apples helps lower cholesterol levels by binding to cholesterol molecules and preventing their absorption in the bloodstream. The combination of these factors makes apples a valuable ally in maintaining a healthy heart.

US vs UK spelling – are your students spelling American in one place and UK in another?

From aiding in weight management to promoting heart health and supporting digestion, apples have earned their reputation as a "miracle fruit" in the world of nutrition. Apples, with their crisp texture and sweet-tart flavour, have earned their place as one of the most popular and widely consumed fruits globally.

Apples develop their flavor through a complex interplay of factors. Genetics play a crucial role, as each apple variety possesses a unique combination of sugars, acids, and aroma compounds that define its taste.

Inconsistent formatting – changes in headings, font, type size, line spacing

#### Heart Health

A heart-healthy option is apples. It has been demonstrated that the antioxidants in apples, exceptionally quercetin, lessen blood pressure and drop the risk of cardiovascular disease. Moreover, apple pulp lowers cholesterol intensity by tethering to fatty molecules and obstructing bloodstream absorption. These pieces work in tandem to make apples a useful friend in conserving a fit heart.

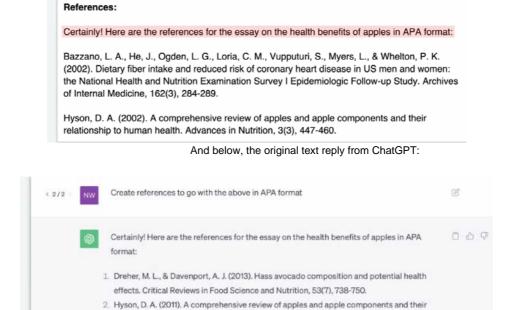
#### Weight Management

Apples are a favorite among those looking to shed a few pounds or maintain a healthy weight. Their high fiber content provides a feeling of fullness and satiety, reducing the likelihood of overeating or snacking on less nutritious foods. Furthermore, the natural sugars in apples provide a satisfying sweetness without the excessive calorie load found in many processed snacks and desserts.





Al response to a prompt - inclusion of the first line of the response from the Al platform:



**Hallucinations** – when Al offers incorrect information (e.g. apples do not have the lowest glycaemic index of any fruit!):

relationship to human health. Advances in Nutrition, 2(5), 408-420.

Apples have the lowest glycemic index of any fruit, meaning they cause a gradual and sustained rise in blood sugar levels. This property makes them a suitable choice for individuals with diabetes or those trying to prevent blood sugar spikes and crashes. The fiber in apples also slows down the digestion and absorption of sugars, further aiding in blood sugar control.

Lack of quotes - when "evidence" is presented without referring to the source:







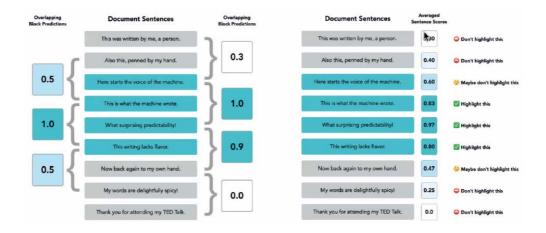
Vieira, F. G. K., & Borges, G. (2016). Apple polyphenols and their effect on oxidative stress and inflammation. Nutrients, 8(12), 735.

Avila C. O. (2019). Novel Use of Apple Watch 4 to Obtain 3-Lead Electrocardiogram and Detect Cardiac Ischemia. The Permanente journal, 23, 19-025. https://doi.org/10.7812/TPP/19-025

#### How does Turnitin's AI detections work?

The detector analyses sections or 'windows' of text at the sentence level and looks for signals i.e. word tokens generated by large language models to predict text. The detection tool looks for token statistics and then assigns a classifier between 0 and 1: 0 meaning that the text in the segment window is highly unlikely to have been written by an AI, and 1 meaning that it is strongly plausible the text was written by an AI.

Only high confidence statistics get flagged however there can still be false positives i.e. text is identified as Al when it is written by a person.



**About false positives:** If the Al indicator is 20% or over, the chance of it being a false positive is very small (around 1%). If a sentence is labelled as "Al-written", it means that its weighted average Al writing score across all windows is greater than the model threshold.

If you would like to understand false positives further, please read more <u>here</u>. (opens a pdf on the web)

White paper: Turnitin's AI writing detection model architecture and testing protocol - Maximizing effectiveness and safety for academic use, August 2023.