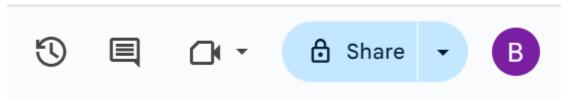
Solving AI Plagiarism in Google Docs

Cheating on essays is easier than ever, and cheating detection has lagged behind. "AI Detector" tools have proven <u>unreliable</u>, <u>exploitable</u>, and <u>biased against ESL students.</u>1

The solution is *Checking Revision History*. AI-written essays have no revision history, but student essays always do.

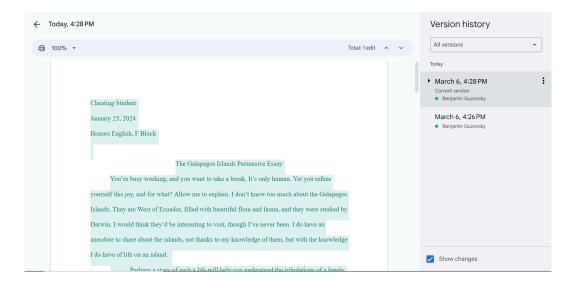
Revision history shows changes to a document, and you can check it by clicking the clock icon in the top right of a doc.



The leftmost item here.

When you have "edit" access to a student's Google Doc, you can check their revision history. Here's how.

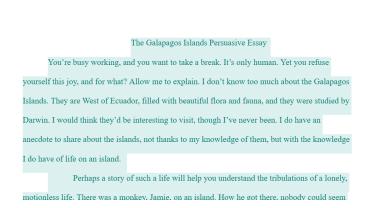
Click the clock icon. You'll see a page like this, possibly with all the text highlighted:

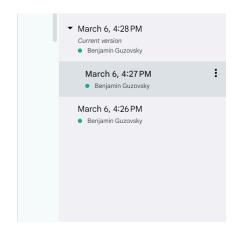


Highlighted text is text that has changed in the last version, corresponding to the highlighted dark gray label on the right (March 6, 4:28pm). Highlights don't mean the student has

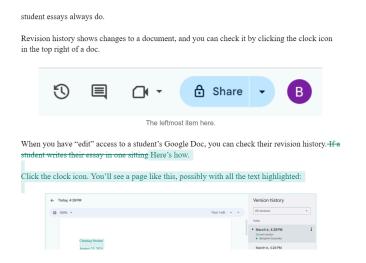
¹ AI Detection exploits include running your output through a <u>paraphrasing tool</u>, which is sometimes included in paid AI-Essay-Writing services automatically, or escaping "<u>watermarks</u>" AI leaves in your writing by prompting it to add an emoji between every word, then deleting those emojis.

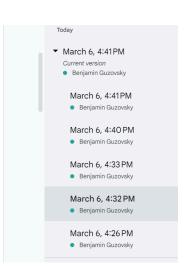
cheated—Google "clumps" different versions together—though it likely means the student wrote the essay in one day.² Clicking the small arrow on the gray label opens a dropdown with other timestamps.





If, within one timestamp, the whole essay is still highlighted, the essay is copy-pasted from elsewhere. For contrast, here is what a human-written essay might look like:





There are many versions on the rightmost column, and in each one only some text is highlighted. Some text is crossed out, indicating that it was modified (AI doesn't do this).

Important Considerations

Students may write their essay in separate documents, then copy-paste into your submission document. It is important to ask students to attach those separate documents as part of their assignment to show work.

² You can see how much time a student spent by looking at the date range from the last item in the right column to the first.

If a student is writing their essay in "offline mode," or while they're not connected to the internet, their document won't have version history. This will often be the case if students have poor internet connection at home or are writing their essay on a plane or train. The best solution here is to ask students to share in advance if they plan to write in a location with poor internet connection. A more direct solution would be to require students to take 3-4 screenshots of their work as they write offline and share those.

If you don't accept essays in Google Docs, this plagiarism detection capability is a serious reason to change that. Similar steps are possible in word but require more manual effort from students.

How much time will this add to grading? No more than 30 seconds per essay. A quick check of the revision history should look at:

- 1. How many versions are there? If there's many, plagiarism is unlikely.
- 2. Do specific versions have small changes, not paragraph-long highlighted blocks? Spot-checking 2-3 versions should do, unless you're keen on catching a student plagiarizing a small amount of their essay (eg. a concluding paragraph), which would take a more thorough, time-consuming parse.

Possible exploits:

A chrome extension that types an AI-generated essay inside a student's Google Doc at a natural, human-like rate. Using a tool like this (which doesn't yet exist) would be incredibly unscrupulous behavior by a student and incredibly unscrupulous for a software developer to build. Hopefully, it doesn't come to that, but new solutions I won't write about here could be implemented to catch that.