

Faculty Senate IT Committee Report on Artificial Intelligence Detection Software, February 2025

Charge from the Faculty Senate Executive Committee, October 2024

We would like to task your committee with looking into the status of the artificial intelligence (AI)-detecting software available to Wright State instructors. A free trial version of the Turnitin AI detector was offered from April to December 2023. Our Computing and Telecommunications Services (CATS) Department was evaluating software from different companies. Can your committee investigate their findings? What companies were evaluated? How were they evaluated? What are the pros and cons of their software, and in general, what are the limitations of such software?

A second task is to investigate the use of software to detect plagiarism and/or the use of AI with regard to computer coding and algorithms. Does such software exist to detect this type of plagiarism or AI use? If so, we have some of the same questions as above. What software is available? What are the pros and cons of this software?

First Task Findings

In January 2024, without prior notification, Turnitin ended the free trial of its AI-detector and started charging for the feature. CaTS did not purchase it at that time, so that is why it stopped being available for faculty use. However, in response to faculty demand, they got it back for us for one year, starting on November 1, 2024, as part of the new contract with Turnitin. (The AI-detector cost \$10,000, bringing the total cost of the Turnitin contract to \$42,000.) Between November 1, 2024 and February 22, 2025, there were 55,264 papers sent through Turnitin at WSU, with the following numbers of faculty, staff, and graduate/teaching assistants submitting documents for checking (*people can be counted more than once*):

- College of Liberal Arts: 204
- College of Health, Education, and Human Services: 204
- College of Science and Mathematics: 192
- Graduate School: 160
- Lake Campus: 88
- Raj Soin College of Business: 71
- Career Center (Graduate/Teaching Assistants): 68
- College of Engineering and Computer Science: 52
- Department of Pharmacology and Toxicology: 32
- School of Professional Psychology: 16
- Total: 1,087

This is the only WSU-supported AI-detection software available at this time.

The Turnitin AI-detector is located in the Turnitin Feedback Studio. Files are checked for plagiarism and AI simultaneously. To obtain an AI writing report and percentage, a document must satisfy the following requirements:

- File size less than 100 MB
- At least 300 (but no more than 30,000) words of prose text in a long-form writing format
- Be written in English or Spanish
- Have one of the following file types: .docx, .pdf, .txt, .rtf

See the CaTS Turnitin website for more information: <https://www.wright.edu/information-technology/pilot-help-for-faculty/turnitin#AI>.

CaTS investigated Turnitin's AI-detector and one from Copyleaks (which partners with Desire2Learn, the company behind Brightspace/Pilot). They tested them on papers of varying levels of AI use (e.g. AI-written, human-written, AI-modified, combination of human and AI writing). They found a lot of variation in the quality of AI-detection, from really good detection to really bad detection. (Committee Member Mike Raymer, Professor of Computer Science, has done similar tests and got the same results.) This is the biggest weakness of AI-detection software currently, especially when considering software like StealthGPT that purposely tries to fool AI-detectors. Another key weakness is that AI-detection software depends on the amount of material (e.g. words) there is to check; the more material there is, the better the chance of successful AI-detection. Thus, in general, long-form writing (e.g. essays, dissertations, articles) produces better results than short-form/unconventional writing (e.g. bullet points, lists, tables, annotated bibliographies) and non-prose (e.g. poetry, scripts, code).

Additionally, there were some weaknesses specific to the Copyleaks detector:

- There was an issue with its integration into Pilot.
- It was time-consuming and not easy to use because documents had to be downloaded and individually ran through the checker.
- The pricing was based on the number of words instead of the number of students like Turnitin.
- The company couldn't give a timeline for development.

Second Task Findings

Software for the detection of AI use in coding and algorithms exists, but none of them are any good. In fact, no one has been successful with this yet, according to Dr. Raymer. (He has fooled every program he has tested.) One of the reasons why is that there are only so many ways to write things when coding, so factors like style and tone that help detect plagiarism cannot be used with code.

Recommendations from the Committee

The Faculty Senate IT Committee recommends the following:

1. CaTS should continue with the implementation and support of the AI detector from Turnitin.

2. The University should offer training on AI for faculty from many offices on campus:
 - a. CaTS should offer training on how to use available AI technology.
 - b. The Center for Faculty Excellence should offer training on best practices related to teaching with AI.
 - c. The Office of Community Standards and Student Conduct should offer training on how to report and handle violations of academic integrity involving AI.
3. The University should create a course for students about how to use AI and the ethical use of AI. Alternatively, this content could be put into an existing course, such as First-Year Seminar.
4. The University should keep everything regarding AI (software, policy, procedure, training, usage data, etc.) updated and review it yearly.