Preventing Academic Misconduct in the AI-Era

by

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Report generated on 9.12.24

General

1355	9.11.24 - 11.12.24	6.05
Word count	Duration of Project	Hours spent writing

Research

10	6	2	7
Notes	Total number of files	Webpages	References

Writing

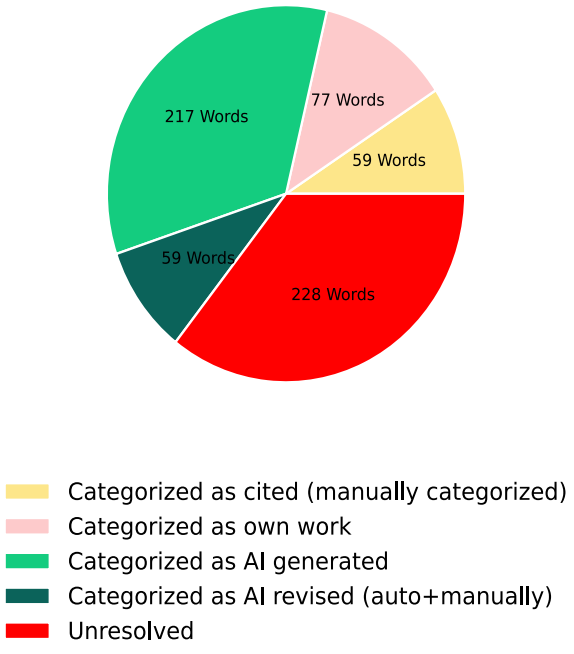
70% **Flagged Text**

Text flagged due to unusual input patterns

47% of the full text were shown to the user as source alerts

0% of which were categorized

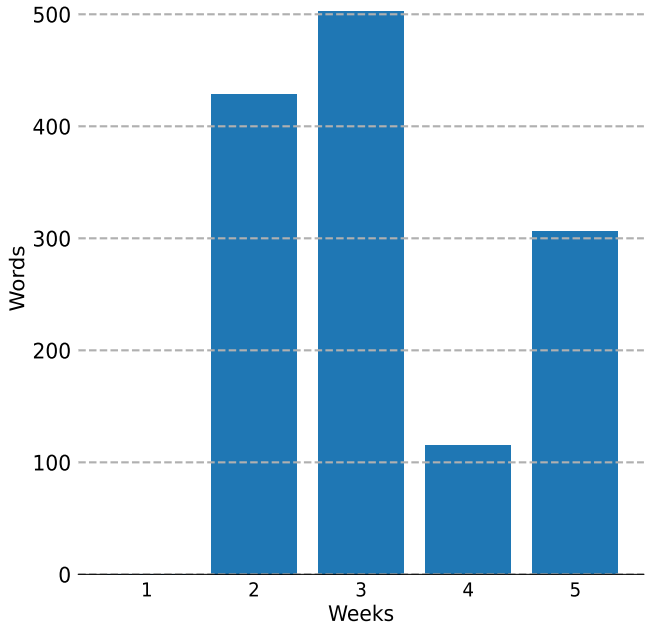
Sources classification



19 **Words per revision**

on average in the Document

Text Creation Timeline



Report Overview: https://my.mentafy.com/report_overview?project_id=2141&token;=7b567fe807a28d2a495814b54c1c2fd16b7ab873

Table of Contents

Project Data

Main Document

1	1355	2	1
Files uploaded	Word count	Footnotes	Endnotes

Files


2 Image(s) **6** Others

Reading list

7	**2** Web URLs	**5** Journals	**0** Books
Sources added			

Activities

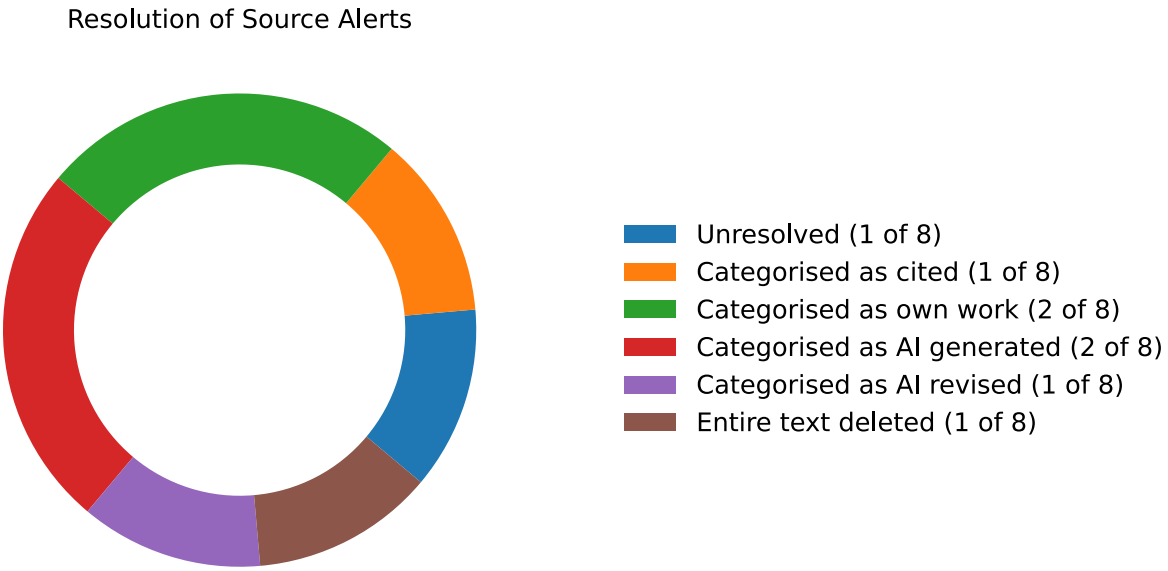
18	10	866.0	36.08
Number of active days	Notes made	Total duration of sessions in mins.	Avgerage duration of a session in mins.

Source Alert

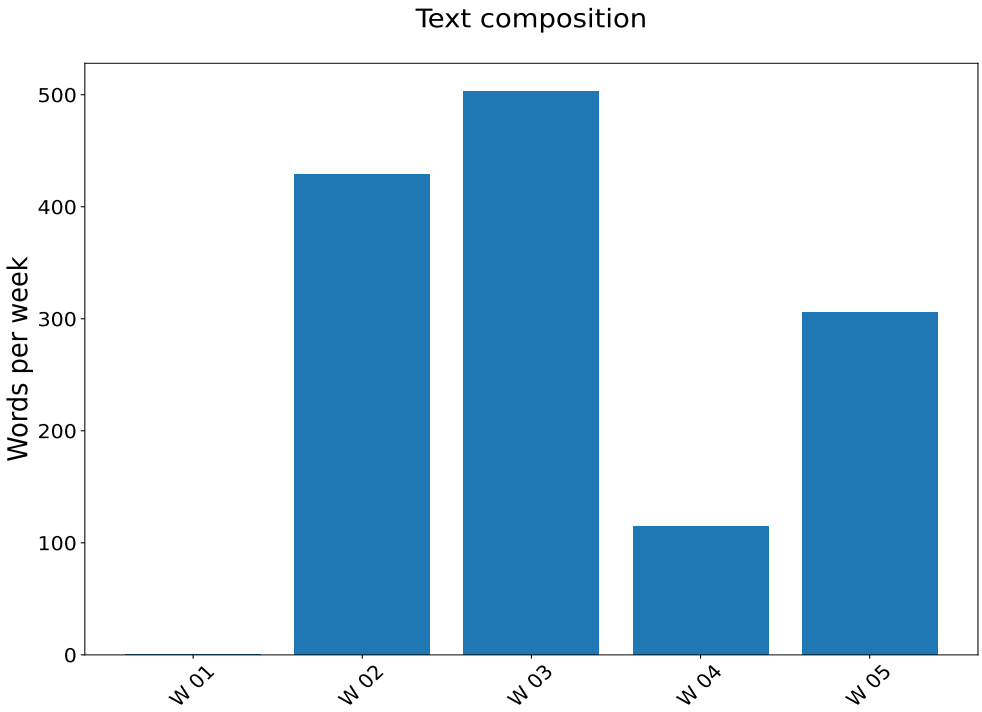
8	1	2	2	1	1
Source Alerts	Categorised as cited	Categorised as own work	Categorised as AI generated	Categorised as AI revised	Entire text deleted

Graphs

Source Alert

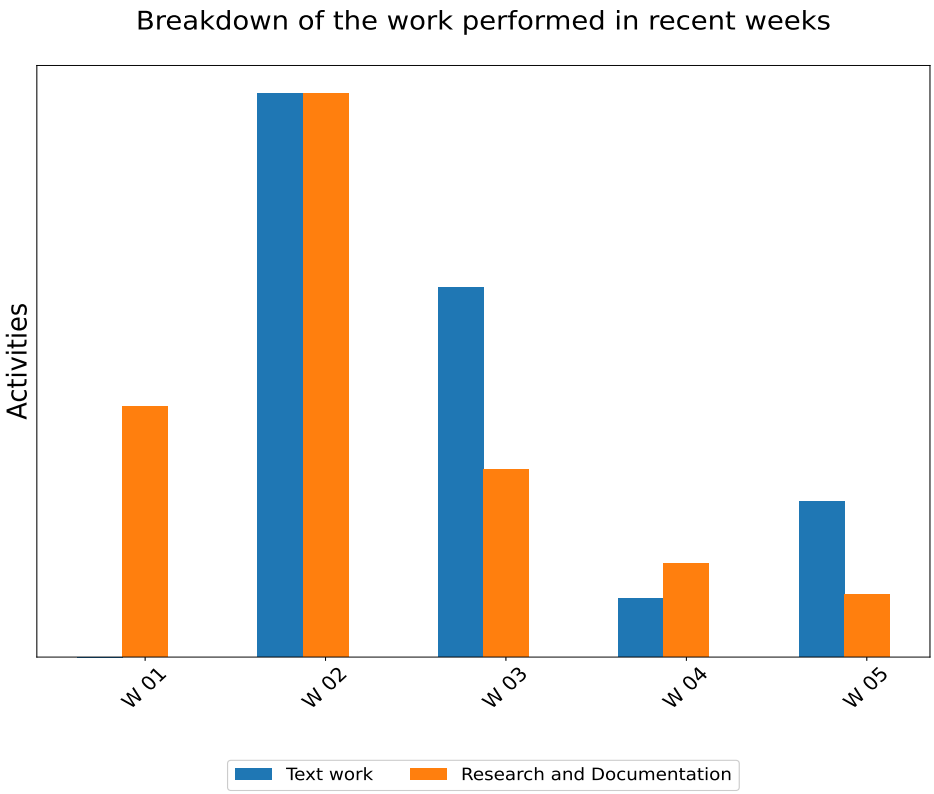


Time of origin of the text elements



This diagram shows when and how much text was produced during the project. Only the words that made it into the final version of the work are counted here

Project activity over time



Research and documentation: notes, audio recordings, photos, files, comments, sources, websites. Text work: New words, changed words, quotations, footnotes, endnotes

Source Alert

Writing Statistics

Number of words in the document	1355
Categorised as AI generated	216
Categorised as AI revised	59
Categorised as cited	59
Categorised as own work	77
Unresolved	227
Number of sequences *	107
Average length of sequences * (Words)	12.66
Average changes per revision	2.44
Words per revision on average **	14.27 (18.56)
Ratio of words to edits	7.61
Percentage of revised words	9.63%
Total number of sessions	23

**A sequence is a continuous insertion of words without edits*

***Excluding categorized text parts; in brackets the raw value*

User Accounts

The following users have edited the main writing document

1 Demo Mentafy
Number of edits: 92
Total number of words remaining in the document from these edits: 1110

2 Markus Goldbach
Number of edits: 22
Total number of words remaining in the document from these edits: 245

Source Alerts

- ID 37372 **Insertion of a large chunk of text detected** on **2024-11-21**.
Words inserted: **883**, of which **16 remain in the document.**
Remaining text: *[...] Paper Author: Subject: Year: Duration: [...] Weeks Submission Deadline: Grade: Date: Signature: Table of Content 1. Introduction*
Status of source alert resolution: Categorised as the owner's own work
Comment: Here I edited the template, which I copied to get started with my paper.
This part was last edited on 2024-11-21.

- ID 37385 **Insertion of a large chunk of text detected** on **2024-11-23**.
Words inserted: **76**, of which **75 remain in the document.**
Remaining text: *Academic integrity, the commitment to honesty and [...] in scholarly work, is a*

foundational principle in education. However, the emergence of generative artificial intelligence (genAI) technologies has introduced new challenges to maintaining academic integrity. Generative AI tools, such as advanced language models, can produce highly sophisticated text, making it increasingly difficult to discern whether a piece of work is genuinely the [...] own creation or generated by an AI. This raises significant concerns for educators,
Status of source alert resolution: Categorised as AI generated
Prompts used: Ths text went copy-typed into the document, not copy&pasted.;
This part was last edited on 2024-11-23.

- ID 37391 **Insertion of a large chunk of text detected** on **2024-11-23**.
  Words inserted: **140**, of which **141 remain in the document.**
  Remaining text: *[...] institutions, and policymakers as they strive to uphold the standards of academic honesty in a rapidly evolving technological landscape. The core problem lies in the deceptive ease with which students can use genAI to complete assignments. Unlike traditional forms of academic dishonesty, such as plagiarism or buying essays (also known as 'contract cheating'), generative AI can produce original content that is not directly copied from an existing source. This uniqueness makes it challenging for conventional plagiarism detection software to identify AI-generated work. Even when institutions adopt AII-based detection tools specifically designed to flag AI-generated content, these technologies face significant limitations. They may yield high false positive or negative rates, struggle to stay updated with the pace of AI [...] or fail to understand the nuanced context in which AI might be used as a learning aid rather than a shortcut.*
  Status of source alert resolution: Categorised as AI generated
  Prompts used: Ths text went copy-typed into the document, not copy&pasted.;
  This part was last edited on 2024-11-23.

- ID 37422 **Insertion of a large chunk of text detected** on **2024-11-24**.
  Words inserted: **61**, of which **59 remain in the document.**
  Remaining text: *Our [...] strongly suggest that the "easy solution" for detection of AI-generated text does not (and maybe even could not) exist. [...] rather than focusing on detection strategies, educators continue to need to focus on preventive measures and continue to rethink academic assessment strategies. Written assessment should focus on the process of development of student skills rather than the*
  Status of source alert resolution: Categorised as external text with citation of the source
  Reference: Debora Weber-Wulf1 , Alla Anohina-Naumeca2 , Sonja Bjelobaba3* , Tomáš Foltýnek4 , Jean Guerrero-Dib5 , Olumide Popoola6 , Petr Šigut4 and Lorna Waddington. (2023). Testing of detection tools for AI-generated text. International Journal for Educational Integrity, pp. 39.
  This part was last edited on 2024-11-24.

- ID 37439 **Insertion of a large chunk of text detected** on **2024-11-25**.
  Words inserted: **227**, of which **227 remain in the document.**
  Remaining text: *When students are not expected to use AI, false positives can lead to unwarranted accusations of misconduct while false negatives may allow violations of academic integrity to go undetected. For this reason, [...] with high false positive or false negative rates (Table 5) should be avoided. If we also exclude the detectors that are generally ineffective in detecting GPT-4 text, just a few detectors – essentially, the top three – remain as viable candidates for use in the academic environment. Local and individual factors are likely to influence the ways in which AI text detectors are used and perceived. Some faculty may be inclined to accept their results uncritically, without further investigation or consideration of the context. At the same time, other faculty may reject the use of detectors in favor of less systematic, intuitive judgments. It is probably best to adopt a moderate approach – to consider the results provided by AI text detectors, to account for other evidence as well, and to acknowledges that some detectors are far more effective (or ineffective) than others. Assessments of students' work should also consider the specific parts of the text for which AI involvement was detected. Fortunately, 10 of the detectors evaluated here – all but*

Crossplag, Grammica, OpenAI, Scribbr, SEO.ai, and Writer – provide separate assessments or scores for particular phrases, sentences, or paragraphs within each document.
Status of source alert resolution: Unresolved
Comment: Not provided
This part was last edited on 2024-11-25.

- ID 37453 **Insertion of a large chunk of text detected** on **2024-11-28**.
  Words inserted: **42**, of which **59 remain in the document.**
  Remaining text: *Artificial intelligence (AI) possesses [...] fundamentally transform educational practices [...] developing personalized [...] pathways that cater [...] unique [...] capabilities [...] meticulously [...] students' [...] dynamically modify [...] methodologies [...] instructional [...] in response. [...] approach [...] enhances learning efficacy [...] fosters student motivation by allowing learners to progress [...] preferred [...] pursue subjects that align with [...] personal*
  Status of source alert resolution: Categorised as AI revised
  Explanation: https://chatgpt.com/share/c5ebb1a0-5b43-42d3-b91f-f3802ed68808
  This part was last edited on 2024-11-28.

- ID 37478 **Insertion of a large chunk of text detected** on **2024-12-08**.
  Words inserted: **61**, of which **61 remain in the document.**
  Remaining text: *The rise of generative artificial intelligence (genAI) presents significant challenges to academic integrity, as it enables students to produce sophisticated text that is difficult to distinguish from their own work. In this discussion, I will explore the limitations of current detection methods, the role of digital forensics, and the broader implications for educational practices and assessment strategies in combating AI-related misconduct.*
  Status of source alert resolution: Categorised as the owner's own work
  Comment: These are notes from a meeting with my professor. Since I didn't have my MacBook, I drafted the first paragraph of the discussion in my notebook and typed it up later.
  This part was last edited on 2024-12-08.

Writing Journal

2024

November 25

1 Note(s), 14 Word(s) in Notes, 0 Image(s), 0 Document(s), 2 Source Alerts

Notes

- I am quoting / adding another source, why AI detection do not really work.

Source Alert

- Insertion of a large chunk of text detected
  Remaining words count: 226
  Status of source alert resolution: Unresolved

November 13

1 Note(s), 68 Word(s) in Notes, 0 Image(s), 0 Document(s), 0 Source Alerts

Notes

- Today I used Mentafy's Topic Finder. It did have some interesting options, I will discuss with my supervisor. It was cool, that it picked up on my hobbies and I hope my supervisor agrees to write about something in that area. My 2 favorites were:

  - Generative AI and Academic Misconduct: A New Challenge for University Plagiarism Detection Systems
  - The Double-Edged Sword: Utilizing Generative AI in High School Writing

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November 16

1 Note(s), 32 Word(s) in Notes, 0 Image(s), 2 Document(s), 0 Source Alerts

Notes

- Discussed my topics and we found a really cool one. Supervisor said it is a little broad, so we might specify it a little more later, once I've done some more research.

Documents

2022Using digital forensics in higher education to detect academic misconduct.pdf

A paper that describes an alternative way to detect misconduct, rather than the usual similarity checks and post hoc checking.

2023Testing ofdetection tools forAIgenerated.pdf

A good overview of an AI-Detection-Software test from an international research group

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November 17

1 Note(s), 21 Word(s) in Notes, 2 Image(s), 0 Document(s), 0 Source Alerts

Notes

- Today, I have done and am doing some more research, regarding the introduction, I feel I don't have enough materials there.

Images

1724066917086202259189585619505 5.jpg

An article, I saw in a paper and want to read later. Hope the resolution is good enough :)

1724066942453759879854934951200 3.jpg

A resource regarding the bigger scheme of things, that may be useful for my introduction to the topic.

November 18

2 Note(s), 31 Word(s) in Notes, 0 Image(s), 3 Document(s), 0 Source Alerts

Notes

- Today, I browsed a couple of websites and mainly read the 3 articles, that I just uploaded, that reviewed AI detection software.
- Note: Roughly spent 4 hours for this research day.

Documents

2023Evaluating theefcacy ofAI content.pdf

An AI-detection software test

2023The Effectiveness of Software Designed to.pdf

An AI-detection software test

2024Reviewing the performance of AI detection tools in differentiating between.pdf

An AI-detection software test

November 21

1 Note(s), 22 Word(s) in Notes, 0 Image(s), 0 Document(s), 1 Source Alerts

Notes

- Today, I setup my main document. I found a nice template and then I copied the whole text to my main document.

Source Alert

- Insertion of a large chunk of text detected
  Remaining words count: 16
  Status of source alert resolution: Categorised as the owner's own work
  Comment: Here I edited the template, which I copied to get started with my paper.

November 22

1 Note(s), 24 Word(s) in Notes, 0 Image(s), 0 Document(s), 0 Source Alerts

Notes

- Today, I have cleared my word template from anything, that is not supposed to stay in there and adapted it to my writing project.

November 23

0 Note(s), 0 Word(s) in Notes, 0 Image(s), 0 Document(s), 2 Source Alerts

Source Alert

- Insertion of a large chunk of text detected
  Remaining words count: 73
  Status of source alert resolution: Categorised as AI generated
  Prompts used: Ths text went copy-typed into the document, not copy&pasted.;
- Insertion of a large chunk of text detected
  Remaining words count: 139
  Status of source alert resolution: Categorised as AI generated
  Prompts used: Ths text went copy-typed into the document, not copy&pasted.;

November 24

1 Note(s), 30 Word(s) in Notes, 0 Image(s), 0 Document(s), 1 Source Alerts

Notes

- I read this fascinating article about digital forensics (Using digital forensics in higher education to detect academic misconduct) and will today talk about it / refer to it in my paper.

Source Alert

- Insertion of a large chunk of text detected
  Remaining words count: 57
  Status of source alert resolution: Categorised as external text with citation of the source
  Reference: Debora Weber-Wulf1 , Alla Anohina-Naumeca2 , Sonja Bjelobaba3* , Tomáš Foltýnek4 , Jean Guerrero-Dib5 , Olumide Popoola6 , Petr Šigut4 and Lorna Waddington. (2023). Testing of detection tools for AI-generated text. International Journal for Educational Integrity, pp. 39.

November 28

0 Note(s), 0 Word(s) in Notes, 0 Image(s), 0 Document(s), 1 Source Alerts

Source Alert

- Insertion of a large chunk of text detected
  Remaining words count: 42
  Status of source alert resolution: Categorised as AI revised
  Explanation: https://chatgpt.com/share/c5ebb1a0-5b43-42d3-b91f-f3802ed68808

December 8

1 Note(s), 55 Word(s) in Notes, 0 Image(s), 0 Document(s), 1 Source Alerts

Notes

- Today, I met with my professor, who provided valuable feedback and new ideas for the discussion section of my thesis. On the way home, I wrote the introduction of the discussion in my notebook, as I had left my MacBook at home. Later tonight, I plan to transfer the handwritten content to my Word document.

Source Alert

- Insertion of a large chunk of text detected
  Remaining words count: 61
  Status of source alert resolution: Categorised as the owner's own work
  Comment: These are notes from a meeting with my professor. Since I didn’t have my MacBook, I drafted the first paragraph of the discussion in my notebook and typed it up later.

Reading list

Clare Johnson, Ross Davies, Mike Reddy. (2022). Using digital forensics in higher education to detect academic misconduct. International Journal for Educational Integrity.

Debora Weber-Wulf , Alla Anohina-Naumeca , Sonja Bjelobaba , Tomáš Foltýnek , Jean Guerrero-Dib , Olumide Popoola , Petr Šigut4 and Lorna Waddington. (2023). Testing of detection tools for AI-generated text. International Journal for Educational Integrity.

Elkhatat, A. M., Elsaid, K., & Almeer, S. (2023). Evaluating the efficacy of AI content detection tools in differentiating between human and AI-generated text. International Journal for Educational Integrity, 19(1). https://doi.org/10.1007/s40979-023-00140-5

Walters, W. H. (2023). The Effectiveness of Software Designed to Detect AI-Generated Writing: A Comparison of 16 AI Text Detectors. Open Information Science, 7(1). https://doi.org/10.1515/opis-2022-0158

Reviewing the performance of AI detection tools in differentiating between AI-generated and human-written texts: A literature and integrative hybrid review. (2024). 1, 7(1). https://doi.org/10.37074/jalt.2024.7.1.14

Atheer Almogbil; Abdullah Alghofaili Information Security Institute Johns Hopkins University, Baltimore, USA ; Chelsea Deane; Timothy Leschke; Atheer Almogbil. (2020). IEEE.org.

ChatGPT.