Transparent, Detailed, Ethical – An Introduction to the Artificial Intelligence Disclosure (AID) Framework

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Land Acknowledgement

As an employee and scholar at the University of Waterloo, I would like to acknowledge that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River.

This active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is co-ordinated within our Office of Indigenous Relations.

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AI DISCLOSURE AND THE CULTURE OF INTEGRITY

Academic Integrity Policies with AI in Mind

- AI Use Policies are generally developed at the local (e.g., departmental levels) rather than organization- or university-wide.
- Policy should be clear about permissible and impermissible uses of AI tools but also need to provide guidance on how to consistently disclose.
- While disclosure needs to be consistent, it also needs to be adaptable in different contexts.

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Student Awareness of AI with AI

- In a recent survey-based study on this issue, Lund (2025) found:
- 96% of student respondents were familiar with their university's academic integrity policy before taking the survey
- 84% knew that platforms like Grammarly Pro might use AI to revise writing, potentially detectable by AI checker tools.

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Concerns Related to AI & Integrity

- Artificial intelligence replaces human effort
- Artificial intelligence violates copyright/intellectual property
- Artificial intelligence generates hallucinations and improper citations
- This is additionally complex as these tools may generate partially correct citations (Mercer et al., 2025)
- Lack of guidance or policy for graduate supervision (Wright, 2024)
- These concerns cross learning and research contexts

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WHAT DO WE KNOW ABOUT GENAI TRANSPARENCY IN EDUCATION AND RESEARCH?

COPE Position

The use of artificial intelligence (AI) tools such as ChatGPT or Large Language Models in research publications is expanding rapidly. COPE joins organisations, such as **WAME** and the **JAMA Network** among others, to state that AI tools cannot be listed as an author of a paper.

AI tools cannot meet the requirements for authorship as they cannot take responsibility for the submitted work. As non-legal entities, they cannot assert the presence or absence of conflicts of interest nor manage copyright and license agreements.

Authors who use AI tools in the writing of a manuscript, production of images or graphical elements of the paper, or in the collection and analysis of data, must be transparent in disclosing in the Materials and Methods (or similar section) of the paper how the AI tool was used and which tool was used. Authors are fully responsible for the content of their manuscript, even those parts produced by an AI tool, and are thus liable for any breach of publication ethics.

COPE Council (2023)

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Ethical Publishing and Peer Review

In general, the following are true about publishing in a post-GenAI world (Perkins & Roe, 2024):

- Authorship cannot be assigned to AI and must be human
- As the author, you are fully accountable for your work, including anything produced by AI
- **Publisher policies exist, but lack specifics**
- You must consider implications for AI tools for privacy, security, and research integrity
- **Transparency and disclosure of AI use is expected when tools are allowed for research tasks**
- Using AI tools to aid peer review may violate copyright, privacy/confidentiality, or ethical conduct of research

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The Current State of Disclosure

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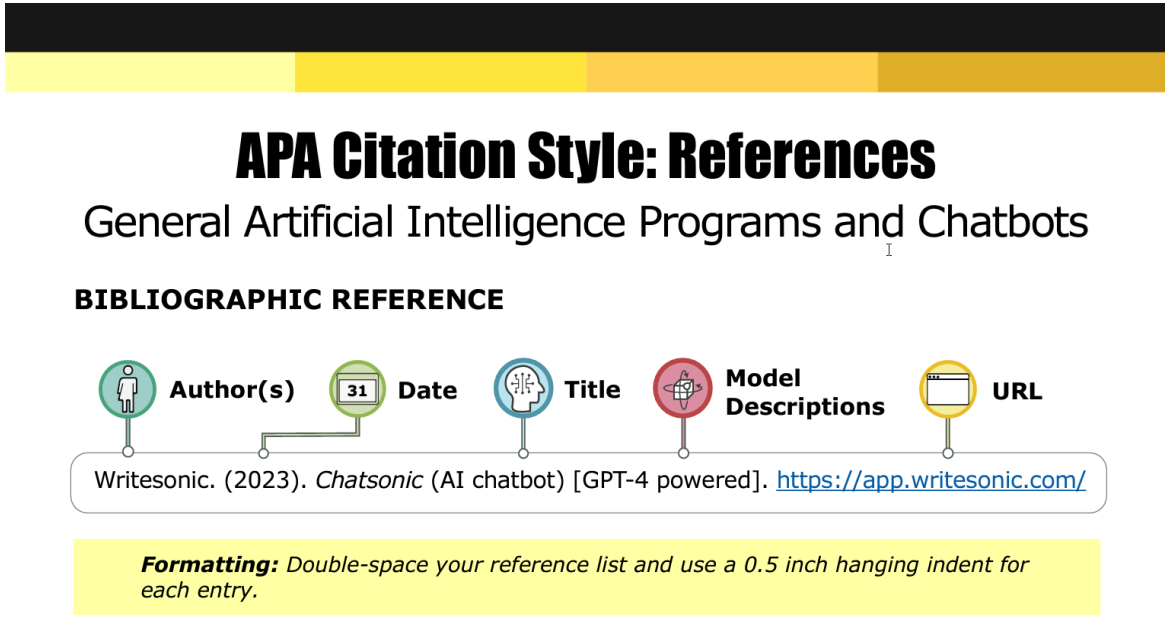
CITATION AND GENAI

Citation of GenAI Use

- **Citation** makes explicit where your text/references/ideas are coming from and directs toward a fixed form or output.
- Guidance comes from major style manuals/organizations.



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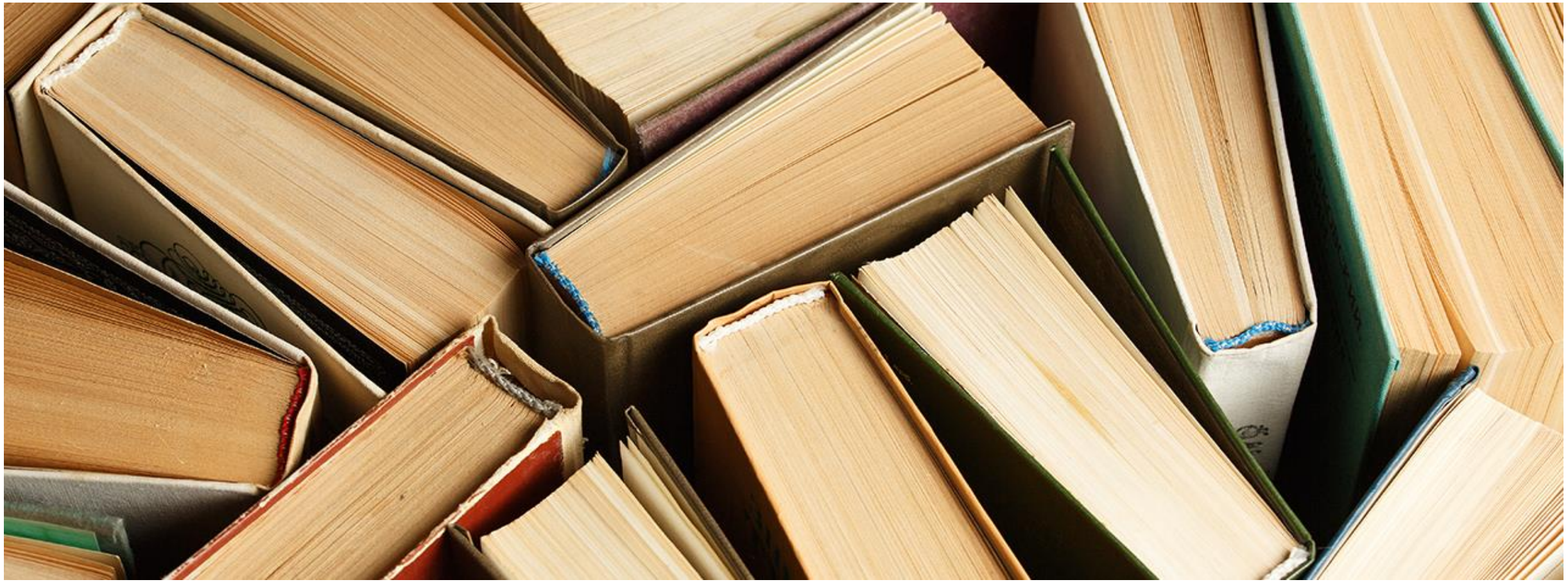
In the chat: Is citation enough for GenAI disclosure? Why or why not?



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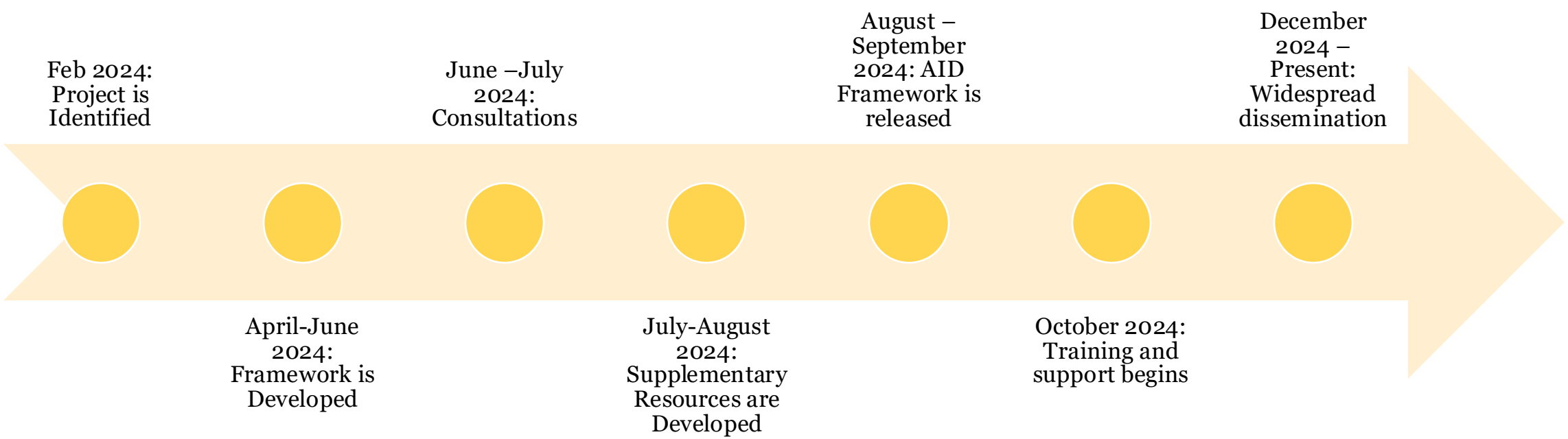
Attribution Practices and GenAI

- **Attribution** allows for description of how or why generated material was used, providing more context, **but we need guidance**.
- Attribution lacks the same level of consistency or specificity in formatting as citation.
- Some publishers (e.g. APA (2023) and Springer Nature (2024)) ask the disclosure to be incorporated into the methods, which may be inappropriate depending on the use.

THE ARTIFICIAL INTELLIGENCE DISCLOSURE FRAMEWORK: TOWARD A STANDARD

Development of the AID Framework



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Why do we need an AID Framework?

The Artificial Intelligence Disclosure (AID) Framework is meant to facilitate standardized, consistent, and transparent disclosure of artificial intelligence use in education and research.

- It is openly licensed to allow adaptions across contexts.
- It should work in concert with citation practices meant for disclosure of direct outputs.
- It should be both adaptable to different educational levels, academic disciplines, and needs.

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AID Framework Headings

Artificial Intelligence Tool(s): The selection of tool or tools and versions of those tools used and dates of use. May also include note of any known biases or limitations of the models or data sets.

Conceptualization: The development of the research idea or hypothesis including framing or revision of research questions and hypotheses.

Methodology: The planning for the execution of the study including all direct contributions to the study design.

Information Collection: The use of artificial intelligence to surface patterns in existing literature and identify information relevant to the framing, development, or design of the study.

Data Collection Method: The development or design of software or instruments used in the study.

Execution: The direct conduct of research procedures or tasks (e.g. AI web scraping, synthetic surveys, etc.)

Data Curation: The management and organization of those data.

Data Analysis: The performance of statistical or mathematical analysis, regressions, text analysis, and more using artificial intelligence tools.

Privacy and Security: The ways in which data privacy and security were upheld in alignment with the expectations of ethical conduct of research, disciplinary guidelines, and institutional policies.

Interpretation: The use of artificial intelligence tools to categorize, summarize, or manipulate data and suggest associated conclusions.

Visualization: The creation of visualizations or other graphical representations of the data.

Writing – Review & Editing: The revision and editing of the manuscript.

Writing – Translation: The use of artificial intelligence to translate text across languages at any point in the drafting process.

Project Administration: Any administrative tasks related to the study, including managing budgets, timelines, and communications.

(Weaver, 2024)

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What Does an AID Framework Statement Look Like?

Artificial Intelligence Tool: Microsoft Copilot (University of Waterloo institutional instance); *Conceptualization:* Microsoft Copilot was used to identify key motor-performance fitness tasks in the development of the research question; *Information Collection:* I used Microsoft Copilot to find relevant journal articles and other sources; *Visualization:* I used Microsoft Copilot to create a graph comparing the different motor-performance fitness tasks included in my paper; *Writing – Review & Editing:* I used Microsoft Copilot to help break down my paragraph long draft sentences into clearer, shorter ones.

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Are AID Framework statements always complex?

No! It depends on how much and in what ways an individual used genAI in their work.

Example:

AID Statement: *Artificial Intelligence Tool(s)*: Microsoft Copilot (University of Waterloo Institutional Instance), accessed May-August 2024; *Writing – Review & Editing*: Microsoft Copilot was used to reorganize the outline and framing of the *Citation vs. Attribution* and *Citation and Privilege* sections of this paper.

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How Does an AID Framework statement look with multiple AI tools?

Artificial Intelligence Disclosure (AID) Statement: *Artificial Intelligence Tools*: ChatGPT v.4o, Microsoft Copilot (University of Waterloo institutional instance), Grammarly, and ProWriting Aid all accessed October 24, 2024; *Conceptualization*: ChatGPT was used to research "Common Elements of GenAI Use Policies for Scholarly Publications and Conferences"; *Information collection*: I used ChatGPT to find relevant journal articles and other sources; *Writing – Review & Editing*: Grammarly and ProWriting Aid were used to provide sentence level revisions.

Thank you to the University of Waterloo Teaching and Learning Conference Planning Committee for this example.

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What About Code?

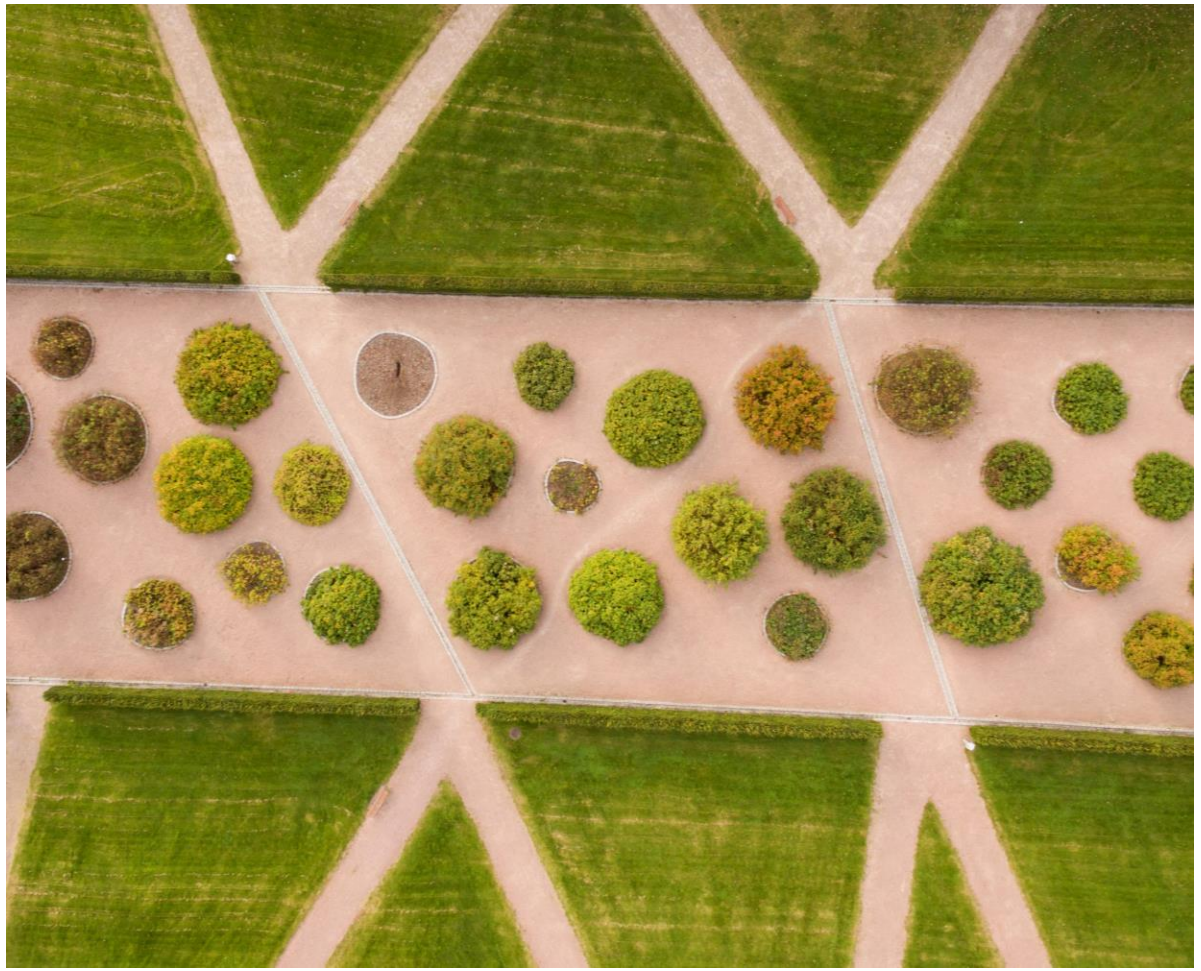
Artificial Intelligence Tools: Gemini (no specified version) and Microsoft Copilot (University of Waterloo institutional instance). *Execution*: Gemini and Microsoft Copilot were used to write and troubleshoot portions of the Python code in this Jupyter notebook.

Munoz Gomez (2025)

WHERE DO WE GO FROM HERE?

Standardizing Disclosure

- Allows educators and researchers to more clearly define acceptable use cases
- To engage with artificial intelligence
- To align practice with expectation



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Questions?

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Credits & Licensing

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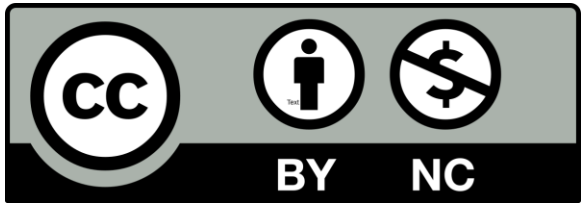

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