

AI for Research

Training Workshop (Academics)

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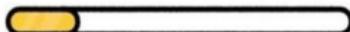
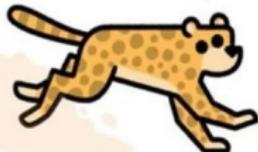
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Overview

- 1 Resources by the workshop presenter
- 2 Examples of Generative AI Tools
- 3 Prompt Writing for Research Tasks
- 4 AI Tools for Literature Search
- 5 Using AI for Literature Review
- 6 Writing with AI

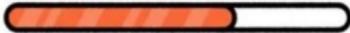
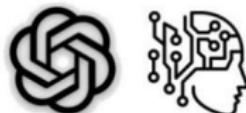
THE FASTEST THINGS ON EARTH



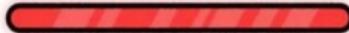
CHEETAH



AIRPLANE



SPEED OF LIGHT



PEOPLE BECOMING EXPERTS IN AI

by Bron Eager (UTAS)

- Presentation board and notes: <http://bit.ly/bron-uts>
- AI Workbook: <https://broneager.com/workbook>
- Website: <https://broneager.com/>
- Newsletter: T3 Newsletter
- LinkedIn: <https://www.linkedin.com/in/bronwyneager/>

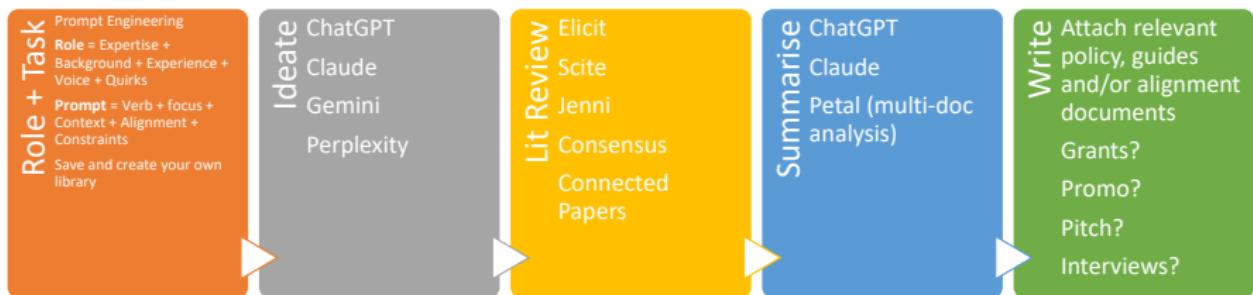
Relevant Journal Articles

- Eager Brunton (2023)
 - URL: [Prompting Higher Education Towards AI-Augmented Teaching and Learning Practice](#)
- Newstead, Eager Wilson (2023)
 - URL: [How AI can perpetuate - or help mitigate - gender bias in leadership](#)

Examples of Generative AI Tools

- ChatGPT (OpenAI)
 - URL: <https://chat.openai.com/>
- Claude (Anthropic)
 - URL: <https://claude.ai/chats>
- Gemini (Google)
 - URL: <https://gemini.google.com/app>
- Perplexity
 - URL: <https://www.perplexity.ai/>

The process



Writing Effective Prompts

Example: icebreaker for students.

- Be specific about the task and desired outcome.
- Use clear and concise language.
- Iterate and refine prompts to improve responses.

Prompt Engineering Resources

- Anthropic Prompt Library
 - URL:
<https://docs.anthropic.com/en/prompt-library/library>
- AI Workbook by Bron Eager
 - URL: <https://broneager.com/workbook>

Prompt Example: Lesson Plan

Initial Prompt

- "Please write a lesson plan for my upcoming class on the topic of entrepreneurial mindset, including practical activities, critical thinking exercises, and discussion points."

Iterative Refinement

- "Ensure the lesson plan aligns with the learning outcomes: 1) Evaluate small business management theories, 2) Address contemporary challenges, 3) Communicate strategies."

Semantic Search Tools

- Elicit
 - URL: <https://elicit.com/>
 - structured lit review
- Scite
 - URL: <https://scite.ai/>
- Consensus
 - URL: <https://consensus.app/>
- Research Rabbit
 - URL: <https://www.researchrabbit.ai/>
- Connected Papers
 - URL: <https://www.connectedpapers.com/>

YouTube Tutorials for Literature Search

Andy Stapleton:

- Semantic Search Tutorial 1
- Semantic Search Tutorial 2

Multi-Doc Chat with Petal

- URL: <https://www.petal.org/?via=broneager>
- Blog Post: Petal AI Literature Review
- Example Application: Scoping review using Petal.

Editing Capabilities

- Shortening text
- Expanding text
- Changing tone

Prompts for editing: Verbs

The image shows a screenshot of an Instagram post. At the top left is the Instagram logo. To the right are a heart icon and a message icon with a red notification badge showing '2'. Below the logo is the user's profile picture and name, ABI Bouhmaida, followed by the handle @forgoodcode. The main text of the post reads: "AI Prompts that are better than \"Rewrite\":". Below this, a numbered list provides five types of AI prompts:

1. Paraphrase: This is useful when you want to avoid plagiarism.
2. Reframe: Change the perspective or focus of the rewrite.
3. Summarize: When you want a quick overview of a lengthy topic.
4. Expand: For a more comprehensive understanding of a topic.
5. Explain: Make the meaning of something clearer in the rewrite.

Prompts for editing: Verbs

6. Reinterpret: Provide a possible meaning or understanding.
7. Simplify: Reduce the complexity of the language.
8. Elaborate: Add more detail or explanation to a given point.
9. Amplify: Strengthen the message or point in the rewrite.
10. Clarify: Make a confusing point or statement clearer.
11. Adapt: Modify the text for a different audience or purpose.
12. Modernize: Update older language or concepts to be more current.

Prompts for editing: Verbs

13. **Formalize:** This asks to rewrite informal or casual language into a more formal or professional style. Useful for business or academic contexts.
14. **Informalize:** Use this for social media posts, blogs, email campaigns, or any context where a more colloquial style and relaxed tone is right.
15. **Condense:** Make the rewrite shorter by restricting it to key points.
16. **Emphasize/Reiterate:** Highlight certain points more than others.

Prompts for editing: Verbs

17. Diversify: Add variety, perhaps in sentence structure or vocabulary.
18. Neutralize: Remove bias or opinion, making the text more objective.
19. Streamline: Remove unnecessary content or fluff.
20. Enrich/Embellish: Add more pizzazz or detail to the rewrite.
21. Illustrate: Provide examples to better explain the point.
22. Synthesize: Combine different pieces of information.

Prompts for editing: Verbs

23. **Sensationalize:** Make the rewrite more dramatic. Great for clickbait!
24. **Humanize:** Make the text more relatable or personal. Great for blogs!
25. **Elevate:** Prompt for a rewrite that is more sophisticated or impressive.
26. **Illuminate:** Prompt for a rewrite that is crystal-clear or enlightening.
27. **Enliven/Energize:** Means make the text more lively or interesting.

Prompts for editing: Verbs

23. **Soft-pedal:** Means to downplay or reduce the intensity of the text.
24. **Exaggerate:** When you want to hype-up hyperbole in the rewrite. Great for sales pitches (just watch those pesky facts)!
25. **Downplay:** When you want a more mellow, mild-mannered tone. Great for research, and no-nonsense evidence-based testimonials.
26. **Glamorize:** Prompt to make the rewrite sexier and more appealing.

Additional Tools

jenni - auto citation of statements and claims.

- URL: <https://jenni.ai/>

futuretools - collects and organizes AI tools.

- URL: <https://futuretools.io/>

beautiful ai - presentations in minutes.

- URL: <https://www.beautiful.ai/>

Q&A

Questions and Discussion