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iSkills: Using AI to Find, Analyse, and Share Information Sources

Luke Geraghty and Helen Bond

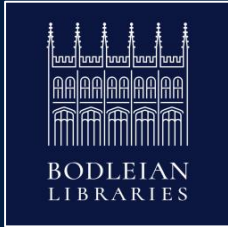
March 3rd, 2025

Session Etiquette



- **Save your questions** for group discussions or the end of the session
- During our time for independent work, we will come around to help, but please **keep background noise to a minimum**
- This enables all attendees to focus

Who We Are



Luke Geraghty

Digital and Information Skills
Officer

Helen Bond

Information Skills Coordinator

Today's Session



- **2 and a half hours, with a 10-minute break**
- **Designed as a hands-on workshop**
- **This session will cover:**
 - An introduction to AI and the University's policies
 - Several popular GenAI tools you can use to find and analyse information
 - How to evaluate the effectiveness of GenAI, including common problems with its outputs
 - How to share AI information sources, with a focus on citing AI to avoid plagiarism and its integration with reference managers

AI Tools We'll Be Using



- As stated in this workshop's prerequisites, **please ensure you have signed up** to the following GenAI tools:
 - **ChatGPT:**
<https://openai.com/chatgpt/>
 - **Elicit:** <https://elicit.com/>
 - **Perplexity:**
<https://www.perplexity.ai/>

What We Won't Cover Today



1. AI tools beyond ChatGPT, Elicit, and Perplexity – we'll mention other tools; won't go in depth
2. General questions on AI e.g. “How does AI affect education?”, “What is its environmental impact?”
 - Check our FAQs section in our “Supplementary Materials” doc (<https://tinyurl.com/49nbwna8>)
3. How AI applies to your research and how to use it in work that underpins a research output
 - The Research Practice team can help you more in this area (research.practice@admin.ox.ac.uk)
 - Further information is also provided in our “Supplementary Materials” doc

Learning Outcomes



- **By the end of this session, you'll be able to:**
 1. Explain what AI means and some key terms
 2. Differentiate between several categories of AI tools
 3. Describe how some GenAI tools can be used to discover information, including their strengths, limitations, and best practices
 4. Critique GenAI tools and their outputs at an introductory level using evaluative criteria
 5. State the University's policies on AI, and avoid plagiarism by creating citations for AI-generated content



An Introduction to AI and the University's Policies

Simple Definition



- **What Is AI?**
 - Technology that enables machines to think or act in a more “human” way
- **Goals of AI:**
 - Identify patterns
 - Make decisions
 - Solve problems
- **Current boom is mainly focused on GenAI**

Some Key Terms



Generative AI (GenAI): A type of AI that can generate new content (e.g. text, images, videos) based on user prompts. What will be returned is based on the data the system was trained on.

Hallucination: A false or misleading piece of information presented as fact. GenAI's responses can contain these. Detecting and mitigating against hallucinations is a significant problem with GenAI.

Large Language Model (LLM): AI that has been trained on large amounts of text - usually thousands or millions of gigabytes' worth - so it can understand and generate human language.

Prompt: This is input (often a text instruction) that you give to a GenAI tool such as ChatGPT. After you enter a prompt, the language model will analyse your input and generate a response based on patterns learnt during its training.

The University's Policies on AI (1)



- AI can be a **supportive tool in learning**, so long as it's used **ethically and appropriately**
- Whenever AI is used, **similar safeguards** to those on **plagiarism** should be adopted
 - *“Authors should never pass off ideas or text gleaned from AI as their own, and there should be a clear acknowledgement of how AI has been used in the work”¹*
- As LLMs can produce incorrect or entirely fictitious outputs, **users must recognise that they're responsible for their accuracy**

¹*Academic Support, AI in teaching and assessment*
(<https://academic.admin.ox.ac.uk/ai-in-teaching-and-assessment>)

The University's Policies on AI (2)



- Consult the **University's web page on AI in teaching and assessment** for details on the University's position and links to further guidance:
<https://academic.admin.ox.ac.uk/ai-in-teaching-and-assessment>
- You should be aware that **academic staff, colleges, and departments may have their own local policies** on the use of AI, and it may be forbidden in guidance that's applicable to you

The University's Policies on AI (3)



- Beyond this general academic integrity advice, **further guidance applies to Oxford researchers using AI in publications**
- Again, we won't be covering this in depth today, but consult the University's Publication and Authorship guidance for details: <https://researchsupport.admin.ox.ac.uk/governance/integrity/publication>
- More information is also provided in our "Supplementary Materials" document (<https://tinyurl.com/49nbwna8>)



Using AI to Find Information and Perform Research Tasks

Traditional Research Methods vs AI



- The **information discovery** process is very different
 - **Traditional:** excluding physical resources, the typical approach is searching Google, library databases, or other collections using keywords/phrases, ending in results that **you** must filter, read, and evaluate
 - **AI:** particularly with GenAI, you can request the tool to only find info (with limited control over its sources), but you'll usually go beyond that to also have it summarise and perform analysis
- AI tools do not have **human judgement** or **critical thinking skills**
- They are best used as a **complement** to **traditional research methods**

Current Popular AI Tools



- **All-purpose GenAI:** ChatGPT, Claude, Microsoft Copilot
- **More “research-focused” GenAI:** Consensus, Elicit, Perplexity, Scite
- **Literature mapping tools:** Connected Papers, Litmaps, ResearchRabbit
- **Writing assistants:** Grammarly, QuillBot

Differences and Uses (1)



- **All-purpose GenAI:**
 - Works with many content types - code, images, speech, text
 - Helpful when analysing and summarising
 - Less useful when generating citations (more on this shortly)
- **“Research-focused” GenAI:**
 - Better than other tools for providing verifiable sources through in-line citations and links
 - More choice over sources e.g. Perplexity, where users can toggle that answers are based on academic papers only

Differences and Uses (2)



- **Literature mapping tools:**
 - Good for identifying key works and authors from publicly-accessible journal articles
 - Could benefit users who need a visual aspect to their research
 - Often integrate with reference management software, especially Zotero
- **Writing assistants:**
 - Multi-functional - improve grammar, generate citations, paraphrase text, summarise, translate, and so on
 - Greater focus on accessibility than other tools e.g. dark mode, language support, mobile apps, browser and MS Word extensions



AI Tool 1: ChatGPT

Introducing ChatGPT



- ChatGPT is an **AI assistant** and **chatbot**
- As mentioned, **it can work with a variety of inputs**, with an **emphasis on text**
- It can generate **human-like responses**, assisting with tasks such as answering questions and creating content

- ChatGPT
- AI Enterprise License ...
- Explore GPTs
- Projects
- New project

What can I help with?

Ask anything

+ Search ...

🔊

ChatGPT Start Screen

- ChatGPT
 - AI Enterprise License ...
 - Explore GPTs
- Projects
- New project

Hello, ChatGPT! Please introduce yourself to someone who might be unfamiliar with you.

Hello! I'm ChatGPT, an AI language model designed to assist with a wide range of tasks, from answering questions and generating ideas to helping with writing, research, and coding. I can summarize information, analyze data, create content, and even provide guidance on specific topics based on your needs. Whether you're looking for quick answers, in-depth discussions, or brainstorming support, I'm here to help! How can I assist you today? 😊

📄 🗣️ 🗑️ ↺

Ask anything

+ Search ...

🗣️

ChatGPT can make mistakes. OpenAI doesn't use University of Oxford workspace data to train its models.

ChatGPT Prompt and Response

ChatGPT Tips



- ✓ **Use personas** – tell ChatGPT it's an expert in your field or on a topic, and describe its audience e.g. layperson, undergraduate, postgraduate
- ✓ **Give examples and regenerate its responses**
- ✓ **ChatGPT may be useful for:**
 - **Broad insights and accessible responses**, streamlining the initial stages of research
 - **Analysing and summarising literature**, but avoid long text dumps and guide its responses e.g. ask it to use bullet points; to identify themes and topics
- ✗ **ChatGPT may be less useful for:**
 - **Generating citations**, but try using the latest model from the model library (Walters and Wilder (2023) found 55% of GPT-3.5's generated citations were fabricated, compared to 18% for GPT-4)

More on Personas



Example:

“During this conversation, please take on the role of a knowledgeable and supportive university study mentor to me, an undergraduate student. Your communication style is warm and polite, avoiding slang and informal expressions.

Your responses should focus on offering guidance, study techniques, and helpful resources to assist me with my current courses.

When I ask questions, provide personalised advice on mastering difficult concepts, completing assignments, exam preparation, and managing my time efficiently.”

How to Direct GenAI

1.	Clarity and Specificity:	Be clear and specific about what you're asking. Vague or ambiguous prompts can lead to equally vague responses. The more specific the prompt, the more targeted and useful the response will be.
2.	Contextual Information:	Provide relevant context. If your question or task requires background information, include it in the prompt. This helps the model understand the full scope of what you're asking.
3.	Concision:	While context is important, it's also good to be concise. Overloading a prompt with too much information can be counterproductive. Aim for a balance.
4.	Sequential Prompts:	If you're working on a complex task, break it down into smaller, sequential prompts. This step-by-step approach can be more effective than a single, complex prompt.
5.	Positive Framing:	Frame your prompts positively, especially when seeking solutions or ideas. Positive framing often leads to more constructive and creative responses.
6.	Open-Ended vs. Closed-Ended:	Decide whether your prompt should be open-ended (inviting a range of responses) or closed-ended (looking for a specific answer). Use open-ended prompts for brainstorming and creative tasks and closed-ended prompts for specific queries. Don't leading questions or you will get misleading answers. The models are always trying to agree with you to be helpful.
7.	Anticipate Misinterpretations:	Be aware of how your prompt might be misinterpreted and try to phrase it in a way that minimizes potential confusion. Be clear about what you want.
8.	Iterative Approach:	Treat the process as iterative. Based on the responses you get, refine your prompts to get closer to the desired outcome. Chain of thought where the model is prompted to solve complex problems through a series of logical steps
9.	Ethical Considerations:	Avoid prompts that could lead to harmful, biased, or inappropriate content. Beware of false positive, especially when dealing with non-English names and words and with output from search engines. Always check.
10.	Leveraging Examples:	If applicable, include examples in your prompt to guide the model's response in the direction you're interested in.
11.	Understanding Model Limitations:	Including the model's training data cut-off, lack of access to real-time information, and areas where it might not provide accurate or reliable responses.
12.	Be Firm	Tell it to do better and try again. Don't take no for an answer. "Follow my instructions"!

Data Privacy Reminder



- Before you start experimenting with ChatGPT today, please **be mindful of the information you share**
- Many GenAI developers will **harvest user data** to train their LLMs
- See if you can **opt out** of this through “Settings” -> “Data controls”, but it’s wise to avoid entering confidential or personal information regardless



ChatGPT

<https://chatgpt.com>

Free to use our task sheet
(<https://tinyurl.com/49nbwna8>)

Over to You – Experiment with ChatGPT



ChatGPT

Discussion - What Pros and Cons of ChatGPT Have You Identified?

ChatGPT Pros and Cons



- ✓ Can be **helpful for general or early research**
- ✓ In an ideal situation, it **might save time on tasks** such as analysis, summarisation, and translation
- ✓ A level of **free access** is usually available to all users
- ✓ Some versions (e.g. Enterprise) explicitly state they **won't use your data** to train their language models
- ✗ **Paid subscription** required for full access
- ✗ **ChatGPT will hallucinate** - corroborate its facts
- ✗ **Results** can be **irrelevant, misleading, or shallow**
- ✗ Provides **limited citing of its sources**
- ✗ **Datasets** that underpin ChatGPT may have been **unethically obtained**, and **can be heavily biased**



Introducing Elicit



- Elicit is an **AI research assistant**
- Most common use is as a **search engine to find papers** for your research topic
- **Ask a question**, and receive back a **summary** of the top relevant papers, as well a **table of individual papers**

🔍 Find papers

Ask a research question



🔗 Get a research report

📄 Start a systematic review PRO

Quick tools

📄 Extract data from PDFs

🔗 List of concepts

Recent

📄 Environmental Impact of Data Centres	10:14am Sep 26	⋮
📄 Scientific Fact-Checking Datasets	9:24am Sep 26	⋮
📄 Fundamental Models in Computational Linguistics	9:25am Sep 24	⋮
📄 Safe AI Implementation in Academic Libraries	10:09am Aug 23	⋮

Elicit Start Screen

Fundamental Models in Computational Linguistics

Share

Q What are the fundamental models of computational linguistics?

Summary of top 4 papers

Copy

Computational linguistics (CL) has evolved from its roots in the 1950s to encompass diverse approaches and models for analyzing and processing natural language (Ferrari, 2004). Fundamental models in CL include theory-driven symbolic methods and corpus-driven statistical techniques, which have increasingly converged in recent years (Dipper, 2007). Key frameworks such as Meaning-Text Theory and Head-driven Phrase Structure Grammar provide foundations for linguistic analysis and natural language processing applications (Feldman, 2006). The field has also embraced linked data approaches, with various models and ontologies developed to represent linguistic resources, including lexical models, specialized vocabularies, data category catalogues, and corpus models (Bosque-Gil et al., 2018). These diverse models and approaches support a wide range of CL applications, from part-of-speech tagging and treebanking to semantic analysis and coreference resolution, all contributing to the ultimate goal of language understanding (Dipper, 2007; Feldman, 2006).

Sort: Most relevant Filters Export as UPGRADE

Paper	Abstract summary	Manage Columns
<input type="checkbox"/> Theory-driven and Corpus-driven Computational Linguistics and the Use of Corpora Stefanie Dipper 2007 · 8 citations	Computational linguistics involves formal modeling of natural language using theory-driven symbolic methods or corpus-driven statistical techniques.	Search or create a column Describe what kind of data you want to extract <input type="text" value="e.g. Limitations, Survival time"/> ADD COLUMNS <input type="checkbox"/> Summary <input type="checkbox"/> Main findings
<input type="checkbox"/> Book Reviews: Computational Linguistics: Models, Resources, Applications, edited by Igor A. Bolshakov and Alexander Gelbukh Anna Feldman International Conference on Computational Logic 2006 · 39 citations Source DOI	The paper provides an overview of two fundamental models in computational linguistics: meaning-text theory and head-driven phrase structure grammar. <div style="text-align: center; margin-top: 10px;"> <input type="button" value="Add new step"/> </div>	

Elicit Tips



✓ **Use sorts and filters** – you’ll find these above the columns for “Paper” and “Abstract summary”; make use of them to narrow your search (publication year, study type etc.)

✓ **Add columns** – Under “Manage columns”, create custom columns for searching papers for the data you’re interested in; AI will check each paper and tell you if your data was found or not

✓ **Elicit may be useful for:**

- **Locating relevant academic papers** by searching through databases
- **Extracting key information and making summaries**

✗ **Elicit may be less useful for:**

- **Access to full-text papers behind paywalls**
- **Finding information from sources like books**

Adding New Steps (1)



- Another way to perform new tasks with selected papers
- Can be useful for exploring Elicit's results in greater depth

approaches and models for analyzing and processing natural language (Ferrari, 2004). Fundamental models in CL include theory-driven symbolic methods and corpus-driven statistical techniques, which have increasingly converged in recent years (Dipper, 2007). Key frameworks such as Meaning-Text Theory and Head-driven Phrase Structure Grammar provide foundations for linguistic analysis and natural language processing applications (Feldman, 2006). The field has also embraced linked data approaches, with various models and ontologies developed to represent linguistic resources, including lexical models, specialized vocabularies, data category catalogues, and corpus models (Bosque-Gil et al., 2018). These diverse models and approaches support a wide range of CL applications, from part-of-speech tagging and treebanking to semantic analysis and coreference resolution, all contributing to the ultimate goal of language understanding (Dipper, 2007; Feldman, 2006).

2 selected
+ Search citation trails
Delete
Sort: Most relevant
Filters
Export as UPGRADE

2018 · 18 citations DOI 🔗	
<input type="checkbox"/> State of the art in Computational Linguistics 🔍 G. Ferrari 2004 · 13 citations DOI 🔗	This paper provides a general overview of the history and development of computational linguistics, but does not directly address the fundamental models of the field.
<input checked="" type="checkbox"/> Introduction to the Issue on Computational Models of Natural Language 🔍 J. Hale +1 📁 Topics in Cognitive Science 2013 · 1 citation DOI 🔗	This paper provides an introduction to computational models of natural language, bridging computational linguistics and cognitive science.
<input checked="" type="checkbox"/> Psycholinguistics, Computational Models of Lexical Processing Spoken Word Recognition 🔍 Richard L. Lewis 0 citations	Computational psycholinguistics builds theories of human linguistic processes in the form of working computational models, particularly for lexical processing and spoken word recognition.
<input type="checkbox"/> Linguistic and computational modeling in language science 🔍 E. Teich +1 📁 The Shape of Data in the Digital Humanities 2018 · 1 citation Source 🔗 DOI 🔗	The paper discusses the use of computational modeling in various linguistic fields, but does not directly address the fundamental models of computational linguistics.
<input type="checkbox"/> Statistical Methods and Linguistics 🔍 Steven P. Abney	...ethods in computational linguistics, which have brought ...atistical linguistics.

Add new step
2 papers selected

Manage Columns

Search or create a column

Describe what kind of data you want to extract

e.g. Limitations, Survival time

ADD COLUMNS

- + Summary
- + Main findings
- + Methodology
- + Intervention
- + Outcome measured
- + Limitations

Show more

Adding New Steps (2)

Elicit Recent Library Upgrade Help L Luke Geraghty

<p>Richard L. Lewis 0 citations</p>		
<p><input type="checkbox"/> Linguistic and computational modeling in language science E. Teich +1 The Shape of Data in the Digital Humanities 2018 · 1 citation Source DOI</p>	<p>The paper discusses the use of computational modeling in various linguistic fields, but does not directly address the fundamental models of computational linguistics.</p>	<p>+ Outcome measured + Limitations Show more</p>
<p><input type="checkbox"/> Statistical Methods and Linguistics Steven P. Abney 2002 · 147 citations DOI</p>	<p>The paper discusses the increasing use of statistical methods in computational linguistics, which have brought significant advances, but also a cultural clash with theoretical linguistics.</p>	

[Load more](#)

[+ Add a new step](#) 2 papers selected

- [Create a new table from selected papers](#) 2 papers
- [Summarize abstracts for selected papers](#) 2 papers
- [Chat with papers](#) Beta 2 papers
- [Ask a new question and find papers](#)
- [Extract data from uploaded papers](#)
- [Get a list of concepts](#)

Adding New Steps (3)

<input type="checkbox"/> Richard L. Lewis 0 citations		
<input type="checkbox"/> Linguistic and computational modeling in language science E. Teich +1 The Shape of Data in the Digital Humanities 2018 · 1 citation Source DOI	The paper discusses the use of computational modeling in various linguistic fields, but does not directly address the fundamental models of computational linguistics.	<input type="checkbox"/> Outcome measured <input type="checkbox"/> Limitations Show more
<input type="checkbox"/> Statistical Methods and Linguistics Steven P. Abney 2002 · 147 citations DOI	The paper discusses the increasing use of statistical methods in computational linguistics, which have brought significant advances, but also a cultural clash with theoretical linguistics.	

[Load more](#)

Summarize papers

Computational psycholinguistics has experienced a resurgence in recent years, bridging the gap between cognitive science and computational linguistics (Hale & Reitter, 2013). This field focuses on developing computational models that simulate human linguistic processes, ranging from word recognition to discourse comprehension (Lewis, n.d.). These models produce behavior that can be compared to human data, serving as testable predictions (Lewis, n.d.). Particularly influential are models of word-level processes, especially spoken and visual word recognition, which are predominantly activation-based (Lewis, n.d.). Despite theoretical convergence in some areas, models differ in important architectural aspects, such as the degree of top-down feedback (Lewis, n.d.). Challenges in modeling spoken word recognition include accounting for the temporal nature of speech, lack of clear word boundaries, and contextual effects (Lewis, n.d.). The field continues to evolve, addressing various linguistic phenomena and bridging different levels of linguistic analysis (Hale & Reitter, 2013).

[+ Add a new step](#)

0 papers selected

Adding New Steps (4)



<https://elicit.com/>

Task sheet: <https://tinyurl.com/49nbwna8>

Over to You – Experiment with Elicit



Discussion – How Does Elicit Compare with ChatGPT?

Elicit Pros and Cons

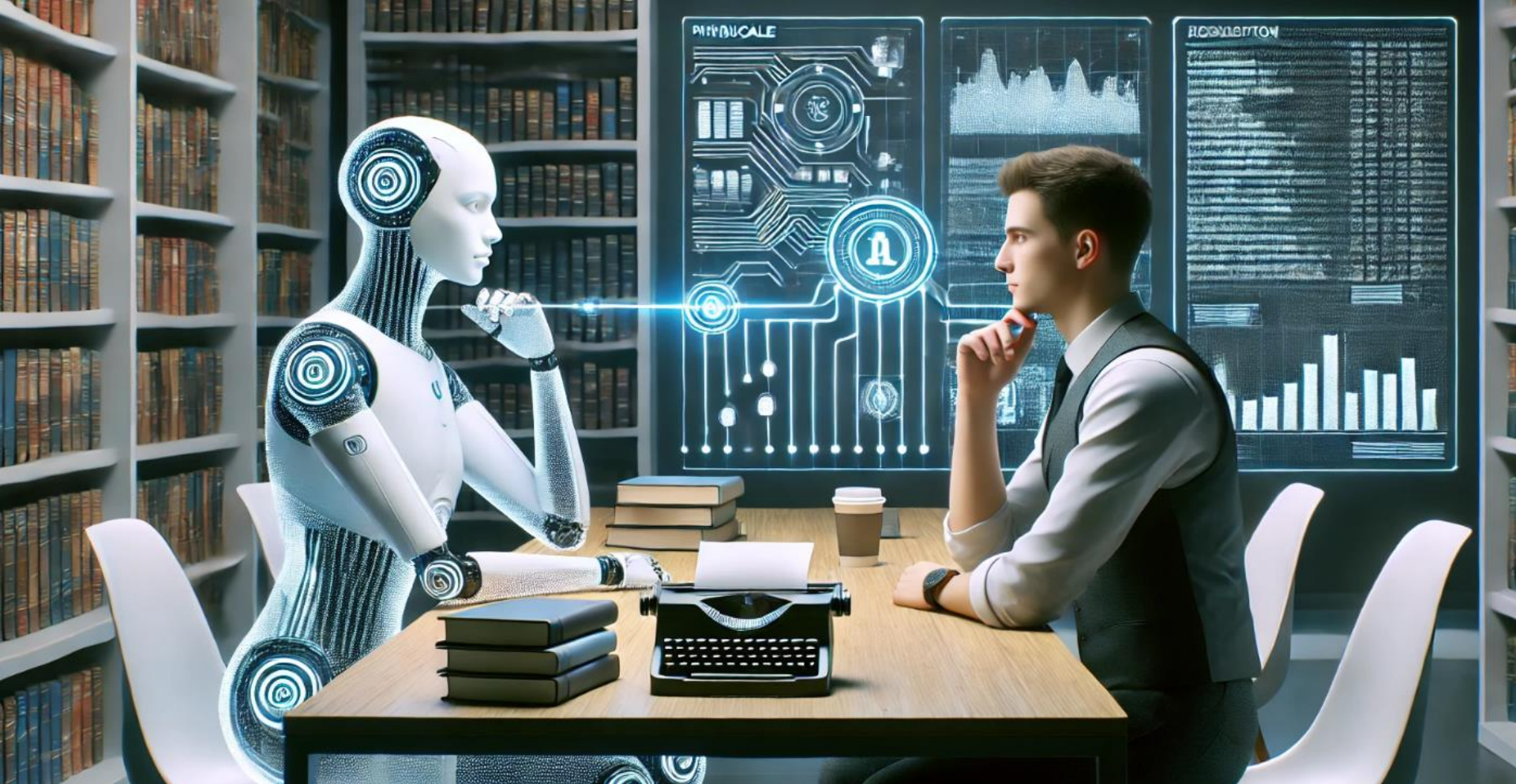


- ✓ Elicit is **less likely to hallucinate** information
- ✓ The **user interface is generally intuitive**, despite the tool's complexity compared to ChatGPT
- ✓ **Has features beyond finding papers**, such as extracting data from PDFs
- ✓ **Level of free access has improved**
- ✗ Like ChatGPT, **paying enables more features**
- ✗ **No tool replaces a normal literature review** (yet)
- ✗ **Will still exclude non-digital sources**
- ✗ **Databases that power Elicit** may have not have been unethically obtained, but they **can still be very biased** towards publicly-accessible journals and certain subjects



zzz

10-Minute Break



Analysing the Effectiveness of GenAI and Its Outputs

Common Problems with GenAI



- Data bias
- Ethical concerns
- Hallucinations
- Inconsistent tone and style
- Lack of context (cultural, historical, interdisciplinary perspectives)
- Lack of source credibility (not adhering to academic standards)
- Misinterpretation of your prompts
- Oversimplification

Detecting Hallucinations (1)



- **Excessive hedging:** when unsure of its answer, GenAI tends to use language that avoids outright incorrect claims
 - Look for excessive use of “possibly”, “it could be argued”, “some studies suggest”, or “it may be the case”
- **Inconsistent information:**
 - **First statement in GenAI’s response:** “The majority of patients with schizophrenia respond well to antipsychotic medication.”
 - **Later statement in the same response:** “Studies suggest that most patients with schizophrenia have minimal improvement with antipsychotic treatment.”

Detecting Hallucinations (2)



- **Overly detailed facts with no sources:**
 - “A study conducted in 1998 by Dr John Smith at Harvard University showed that patients with schizophrenia had a 45% improvement in cognitive function after taking Drug X.”
- **Non-existent citations:**
 - Example prompt: “Write an editorial of 2000 words with references for a scientific journal on schizophrenia about using ChatGPT in research. **Please include up to 5 references in your answer.**”

Detecting Hallucinations (3)



- **Non-existent citations (continued):**
 1. Patel, S. B., & Lam, K. (2022). ChatGPT: The future of mental health support? *The Lancet Psychiatry*, 9(5), 363.
 2. Erhardt, A., Spoomaker, V. I., & Wettstein, P. (2021). Artificial intelligence in psychiatry: Promises and pitfalls. *European Archives of Psychiatry and Clinical Neuroscience*, 271(2), 183-185.

These papers don't exist for the aforementioned prompt, although there is a 2023 paper from the authors in citation 1 called "ChatGPT: the future of discharge summaries?"

Critically Assessing AI (1)



- One technique you can use to evaluate an AI tool's suitability is the **ROBOT checklist** (Hervieux and Wheatley, 2022):
 - **Reliability**
 - **Objective**
 - **Bias**
 - **Ownership**
 - **Type**

Critically Assessing AI (2)



Reliability

- How reliable is the information about the tool?
- Is the developer's contact information available?
- When was the tool released/updated?
- Are there privacy policies?
- Are you happy with how your data will be used?

Objective

- What is the goal/objective of the tool? e.g. inform or persuade users, add to developer datasets, find financial backing
- How transparent is the developer about their purpose?

Critically Assessing AI (3)



Bias

- Is there information about how the tool has been built or the data that underpins it?
- Are there ethical issues associated with this?
- Are biases or ethical issues acknowledged by the developer?

Owner

- Who is the owner or developer of the tool? Are they the same? How credible are they?
- Who is responsible for the tool? e.g. government, private company, research group
- Who can access the tool?

Critically Assessing AI (4)



Type

- Which subtype of AI is it?
- Is the technology applied or theoretical?
- What kind of information system does it rely on?
- Does it rely on human intervention?



Elicit



perplexity

AI Tool 3: Comparing Elicit with Perplexity

Introducing Perplexity



- **Conversational search engine** powered by AI
- **Searches the web and uses LLMs** to generate responses
- Generally presents **sources and in-line citations** for its answers
 - *"The New Bodleian was later renovated and reopened as the Weston Library in 2015, providing modern facilities for both academic and public use" (4) (5) - the numbers will be clickable links*

New Thread Ctrl I

- Home
- Discover
- Spaces
- Library

What do you want to know?

Ask anything...

Auto [dropdown] [globe icon] [edit icon] [submit icon]

Introducing deep research
The most powerful way to conduct in-depth research and analysis.

13°C Partly cloudy Oxford H: 13° L: 9°

Humane Shuts Down AI Pin

Sports Choose your teams

Try Pro
Upgrade for image upload, smarter AI, and more Pro Search.
[Learn More](#)

luke_g [dropdown] [settings icon]

Download [X icon] [chat icon]



Perplexity Start Screen

New Thread Ctrl I

Home

Discover

Spaces

Library

Can you tell me some semi

Can you tell me some seminal work on modern teaching methods?

Modern Teaching Methods Every Teacher...
edsemblil

7 Modern Teaching Methods Every Educato...
sparkrock

Teaching Methods: Traditional Vs Modern ~...
stephenperse

+5 sources

Search Images +

Search Videos +

Generate Image +

Answer

While the search results don't provide specific seminal works on modern teaching methods, they do highlight several influential modern teaching approaches that have gained prominence in recent years:

1. **Flipped Classroom:** This method involves students studying new material at home and practicing in class, reversing the traditional classroom-homework paradigm [1](#) [4](#) [8](#).
2. **Collaborative Learning:** This approach promotes peer-to-peer interaction and teamwork to solve complex problems and address misconceptions [1](#) [2](#).
3. **Spaced Learning:** Teachers repeat course material multiple times with short breaks in between, helping to increase information retention and reduce the "forgetting curve" [1](#) [2](#) [5](#).
4. **Project-Based Learning:** This method engages students in solving real-world problems or answering complex questions through long-term projects [4](#).
5. **Blended Learning:** This approach combines online educational materials with traditional classroom methods [4](#).
6. **Interdisciplinary Approach:** This method encourages students to connect knowledge from different subjects, providing a more holistic learning experience [4](#).

These modern teaching methods focus on student-centered learning, active engagement, and the development of critical thinking skills. They represent a shift from traditional "chalk and talk" methods towards more interactive and collaborative approaches

Ask follow-up

W

have been widely adopted and studied in educational research and practice. To find

Elicit vs Perplexity



- I want you to carry out a **short critical assessment** of Elicit and Perplexity
- Use the guidance provided in this presentation (and repeated in the task sheet)
- What information can you find on Elicit's website compared to Perplexity's?
- What are the differences in their outputs and trustworthiness for research?



<https://elicit.com/>



<https://www.perplexity.ai/>

Task sheet: <https://tinyurl.com/49nbwna8>

Over to You – Compare and Contrast Elicit with Perplexity



Elicit



perplexity

Discussion – Comparing and Contrasting Elicit with Perplexity

Elicit vs Perplexity Outcomes



- **Perplexity's information sources are more likely to be unreliable** e.g. non-academic websites and social media posts
- **Use Perplexity's "Academic" focus mode** to constrain its sources - may still be limited vs Elicit's
- **Perplexity allows you to turn off retaining your data** to train its models; has two FAQs sections and a privacy policy; little info on its LLMs
- Elicit has pages on its limitations, hallucinations, and how to cite it; a changelog so you can track updates; a privacy policy; but **no easy way to turn off using your data** (your PDF uploads do remain private)



Sharing Information Sources: Citing AI and Managing References

The University's Policy on Plagiarism



- **The University's definition of plagiarism has been updated to include AI**
- **Students must cite AI content** in their work as they would a book, journal article, website etc.
- **AI can be used within assessments only where prior authorisation has been given,** or when AI has been agreed as a reasonable adjustment for a student's disability
- For the full definition, see: <https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism>

Avoiding Plagiarism by Citing AI (1)



- **Some**, but not all, **referencing styles now have guidance on how to format AI references**
- This is **interim advice only** and subject to change
- **Cite Them Right** is an online referencing tool that's free to members of the University (<https://www.citethemrightonline.com/>)
- You can find examples from Cite Them Right on how to reference different forms of GenAI using various citation styles

Avoiding Plagiarism by Citing AI (2)



- Please note that **using and referencing AI tools in research papers is different**
- If you are using AI as part of the **research process** and to develop a **research output** (including the collection, analysis, and interpretation of data), this should be **referenced in the methods or acknowledgments sections** (or similar), rather than as a citation in the bibliography
- Contact the Research Practice team for more advice (research.practice@admin.ox.ac.uk)

Bibliographic Citations (1)



If the AI's end product is only available to you (e.g. having a conversation with ChatGPT), cite this as a personal communication and include a description of the AI generated material in your in-text citation.

Style: Harvard

In-text citation:

When prompted by the author, ChatGPT responded with a “definition of academic integrity” (OpenAI ChatGPT, 2024). A copy of this response is in Appendix 1.

Reference list:

OpenAI ChatGPT (2024) ChatGPT response to John Stephens, October 2nd 2024.

Bibliographic Citations (2)



If the AI material is available online, you can cite it as an electronic version of a source (such as an artwork or article).

Style: Harvard

In-text citation:

The AI-generated flower (Shutterstock AI, 2024)...

Reference list:

Shutterstock AI (2024) *Photo of pond with lotus flower* [Digital art]. Available at: <https://www.shutterstock.com/image-generated/photo-pond-lotus-flower-2252080005> (Accessed: October 2nd 2024).

If in Doubt



- In the absence of guidance for your specific AI tool, **adapt the referencing style for the source type closest to the AI tool or AI output** e.g. audio recording, image, personal communication
- **Consult tutors or relevant staff members**, especially if they require you to provide a copy of the AI work as an appendix to your work

Organising and Managing References



- Currently, the reference managers EndNote, RefWorks, and Zotero **do not have a specific resource type for AI**
- Again, it's necessary to **match the closest pre-existing resource type** (e.g. artwork, dataset, video recording) when creating citations
- **This approach ensures consistency** while we wait for these tools to potentially update their resource categories to include AI-specific options

Integration with Reference Managers (1)



- **Reference managers don't yet have built-in AI functionalities**, but there are plugins that integrate with them
- However, many plugins require you to have **paid AI subscriptions**
- Zotero has the most AI integration
- Some plugin examples for it include Aria, a plugin that integrates ChatGPT, and Scite's plugin that enriches Zotero user libraries with information

Integration with Reference Managers (2)



- Aside from plugins, it's also **possible to import and export data and citations between AI tools and reference managers**
- For example, Elicit allows users to connect Elicit to Zotero, and work with papers in your collections (on Elicit, go to “Account settings” -> Scroll down to “Integrations”)
- Usually, **full functionality will require a paid subscription**

Wrap-Up: Next Steps



- **iSkills has separate workshops on how to use EndNote, RefWorks, and Zotero,** covering their main features, if these are new to you (see our list of workshops: <https://www.bodleian.ox.ac.uk/ask/workshops/>)
- We explored GenAI and “research-focused” GenAI tools today, but you may want to **look at the other AI categories we mentioned** e.g. literature mapping tools like ResearchRabbit

Wrap-Up: Learning Outcomes



- **With this session at its end, you now should be able to:**
 1. Explain what AI means and some key terms
 2. Differentiate between several categories of AI tools
 3. Describe how some GenAI tools can be used to discover information, including their strengths, limitations, and best practices
 4. Critique GenAI tools and their outputs at an introductory level using evaluative criteria
 5. State the University's policies on AI, and avoid plagiarism by creating citations for AI-generated content
- Any **final questions?**



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Thank you!

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Hervieux, S. and Wheatley, A. (2022) *Separating Artificial Intelligence from Science Fiction: Creating an Academic Library Workshop Series on AI Literacy*, in *The Rise of AI: Implications and Applications of Artificial Intelligence in Academic Libraries*. Association of College & Research Libraries. Chicago, IL. pp.61-70.

OpenAI DALL-E 3 (2024) *Futuristic Orbs and Question Mark with AI Text*. [Digital art] Prompt: "Please generate an image that's large enough for a PowerPoint slide. I want it to be abstract and related to AI with question marks and AI elements. It should also be futuristic." DALL-E 3 response to Luke Geraghty, October 4th, 2024.

OpenAI DALL-E 3 (2024) *Integrating AI into the Bodleian Libraries*. [Digital art] Prompt: "I'd like you to generate an image for me that can take up an entire PowerPoint slide. I want the image to be of an AI that is working at the Bodleian Libraries. Please make this image professional but intriguing." DALL-E 3 response to Luke Geraghty, August 30th, 2024.

References (2)

OpenAI DALL-E 3 (2024) *Oxford Student Interacting with AI in Autumn*. [Digital art] Prompt: "Can you show an undergraduate walking around Oxford University while interacting with an AI on their phone? It should be in autumnal setting." DALL-E 3 response to Luke Geraghty, August 30th, 2024.

OpenAI DALL-E 3 (2024) *Sleeping Robot*. [Digital art] Prompt: "Can you generate a cute robot sleeping on a pillow with "zzzzs" coming out of its mouth?" DALL-E 3 response to Luke Geraghty, October 4th, 2024.

OpenAI DALL-E 3 (2024) *Young Man and AI in a Modern Library Setting*. [Digital art] Prompt: "I want to generate a PNG image that's big enough to take up an entire PowerPoint slide. I want the left-hand side of this image to be an AI sitting at a library desk. I want the right-hand side of the image to be a human being sitting at the same desk. I want some type of physical representation that they are connected (e.g. a dotted line). I want the human being to have lots of books around them on their side of the desk." DALL-E 3 response to Luke Geraghty, August 30th, 2024.

OpenAI DALL-E 3 (2024) *Young Woman Holding a Tablet*. [Digital art] Prompt: "Can you show me a young woman holding a tablet, and showing her thinking about the information she's seeing on the screen?" DALL-E 3 response to Luke Geraghty, October 4th, 2024.

References (3)

OpenAI DALL-E 3 (2024) *Young Woman Researching at a Library Computer*. [Digital art] Prompt: "Can you create an image for me of a young woman who's conducting research in an Oxford library setting, with other students behind her sitting at tables?" DALL-E 3 response to Luke Geraghty, October 4th, 2024.

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