

AI & the Research Process

Following the “Big6 Model”

		BASIC	INTERMEDIATE	ADVANCED
<ul style="list-style-type: none"> Define the information problem Identify Information needed 1 TASK DEFINITION		Ask an LLM: What is a good research topic based on assignment instructions + my personal interests	Upload your class readings and notes to Google NotebookLM and ask it to determine a good research topic that may address gaps in the current literature	Use a project management AI tool to build out a schedule of to-dos, reminders, etc.
<ul style="list-style-type: none"> Determine range of sources Evaluate and prioritize sources 2 INFORMATION SEEKING STRATEGIES		Ask an LLM for search strategies and keywords to use when searching in academic databases	Dialog with an AI tool to expand upon ideas being queried. Iterating on queries to improve retrieved information and to allow the researcher to better understand their question	Create a research plan which may include things like a reasonable timeline of tasks to complete and how to complete them within the timeframe you have and within the capabilities you have
<ul style="list-style-type: none"> Locate sources Find information within sources 3 LOCATION & ACCESS		Use an AI-powered research database like Scite and ask your research question using natural language searching. Analyze the generated summary and seek out paywall materials at the Library.	Mine for references in articles that come up for you to find more resources. We recommend searching the Library to see if they have access to those articles/books/etc.	Use AI-powered research tool like Research Rabbit to visualize connections across various papers to determine common themes, important people in the field, important journals in the field, and perhaps gaps in the research that you can address
<ul style="list-style-type: none"> Engage the information Extract information 4 USE OF INFORMATION		If concepts in a reading are confusing- ask an LLM what they mean to give you some possible context	Use a tool like ChatPDF to ask a document “questions” that align with your research interests. This can help you quickly determine if the document has material that is relevant to you.	Start a research “notebook” with the resources you find to be able to query those resources and find trends that go across them
<ul style="list-style-type: none"> Organize information from multiple sources Present the information 5 SYNTHESIS		Use AI to summarize individual papers and identify key themes. Ask AI to explain complex concepts and relationships between different papers' findings. Create simple outlines by asking AI to organize main points from your sources	Use AI to compare and contrast multiple papers, identifying patterns and contradictions. Ask AI to help generate synthesis matrices to organize themes across sources. Have AI suggest potential connections between seemingly unrelated concepts in your research	Use AI to analyze themes across large paper sets and generate visual concept maps of relationships between theories and findings. Leverage AI to identify research gaps and develop integrated theoretical frameworks
<ul style="list-style-type: none"> Product Process 6 EVALUATION		Upload a bibliography of all the sources of looked through, and compare it with how many were actually used to determine possible strategies for more effective searching for future projects	Upload your research notes and drafts to analyze how you could improve your process for future projects while integrating an AI project management tool	Set up a search query that notifies you when you or your research is mentioned in academic or popular contexts and provide a summary of the main point(s) of the discourse surrounding your work

In development by the CUNY Office of Library Services Library Research AI Task Force

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