



AI Adoption Training

Workshop#3: AI for Operational Excellence

November 19th, 2025



Today's Agenda

1. **Intro** (5 mins)
2. **Project Management Workflows** (15 mins)
3. **Connecting to Data Sources** (10 mins)
4. **Data and Quantitative Analysis (Excel)** (20 mins)
5. **Productivity Techniques** (15 mins)
6. **Wrap Up** (5 mins)

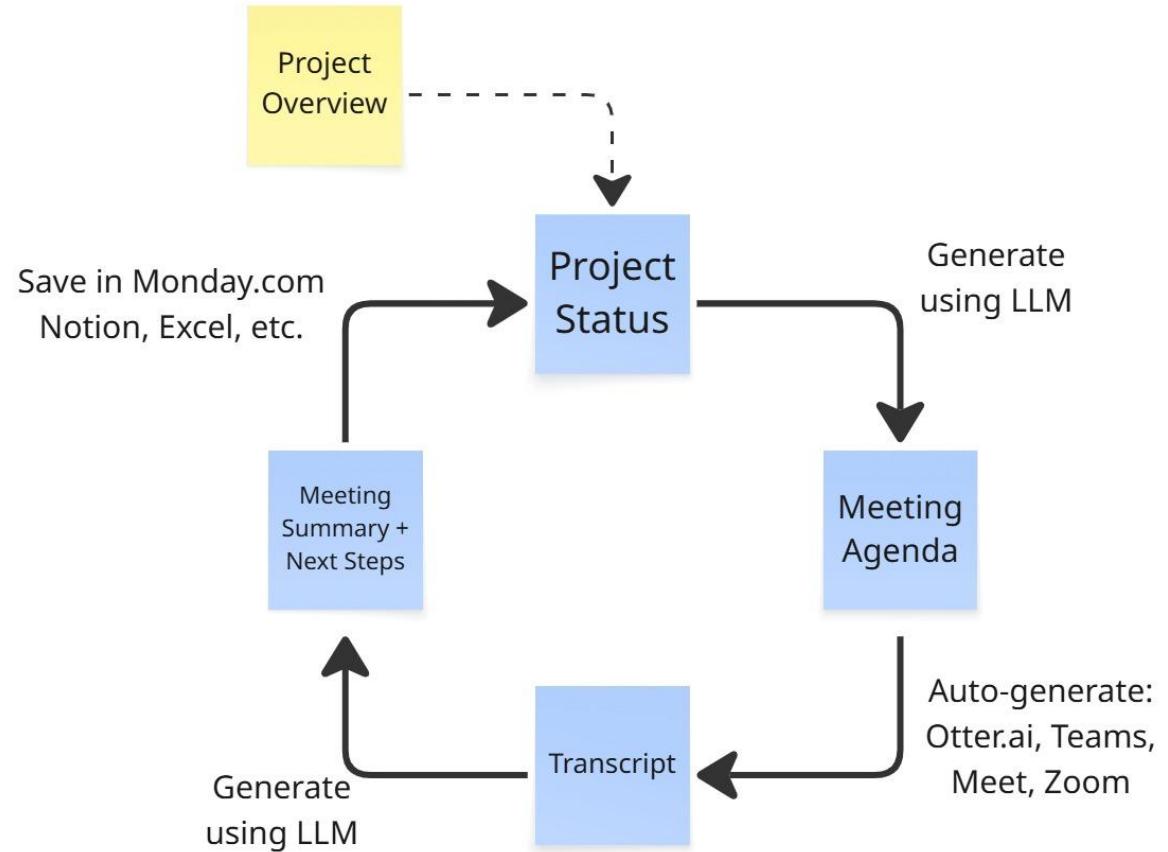
Materials are available at: https://github.com/mullinsean/ai_training

AI for Operational Excellence



AI for Project Management

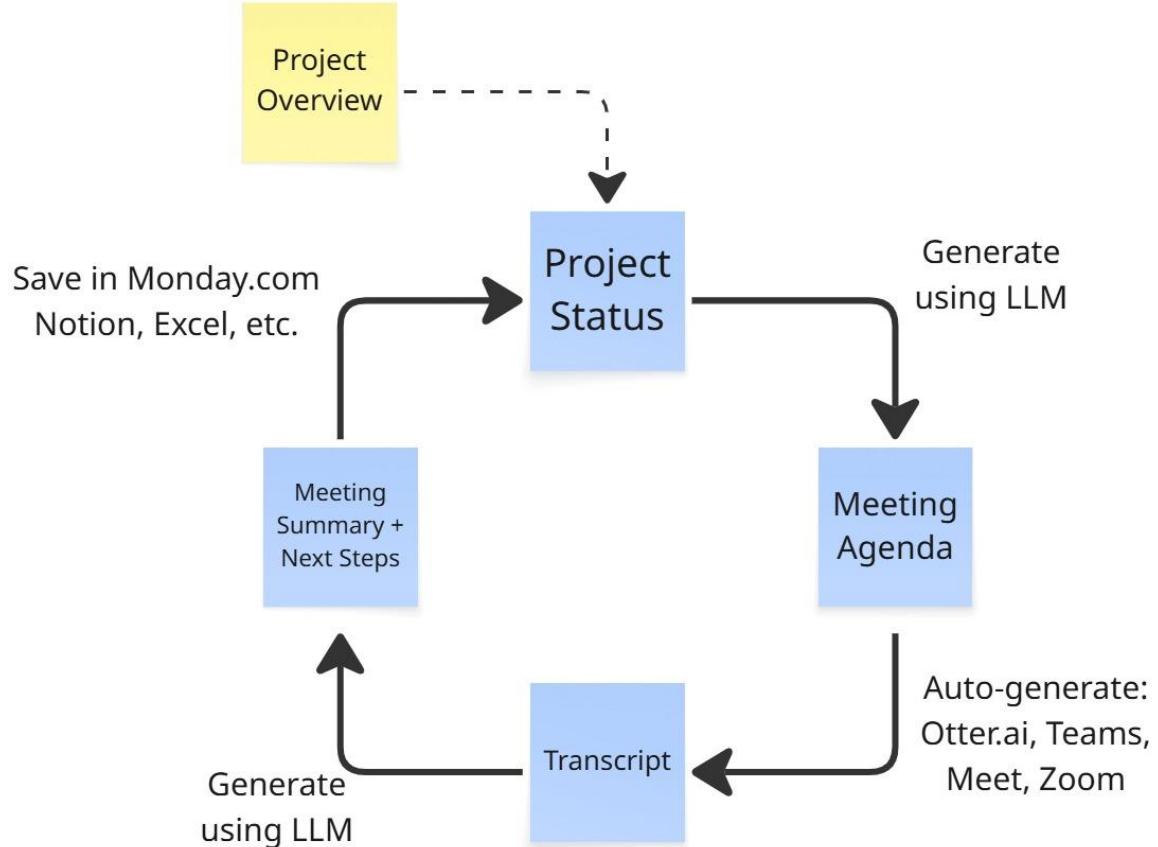
Simplified project management cycle



- LLMs can streamline project management cycles and help keep teams organized, prioritized and informed.
 - However, this use is still early and workflows and UX are still being worked out
- Legacy project management tools are rapidly evolving to catch up to LLMs, but many still require manual connection (ie: copy & paste) to use LLMs.
- Important to think through how your existing tools (eg: monday.com, Excel, etc.) can be enhanced with selective LLM use.
- We will go through some tools (Claude/ChatGPT projects, MCP connectors, data stores) that make this easier.

AI for Project Management

Simplified project management cycle



Best Practices for Project Management:

1. Produce a solid, clear project overview at the beginning of a project; ensure it stays up to date. *Always add to context window.*
2. Attach agendas and project status updates to calendar invites.
3. Designate one person (meeting owner or project lead) to generate transcript and meeting summary.
4. Save transcripts and summaries in a central location. Chat session links, too!
5. Ideally, standardize on one project management tool for the entire organization.
6. Review before sending out agendas and next steps!

AI for Project Management

Sample prompts for the project management cycle



Prompt: Summarize Meeting

```
You are summarizing a project meeting. Use the project state document for context.
```

```
<project_state>  
[Paste project state document]  
</project_state>
```

```
<meeting_transcript>  
[Paste transcript]  
</meeting_transcript>
```

Create:

1. Executive summary (3-4 sentences)
2. Key decisions made
3. Action items (format: Task | Owner | Deadline | Status)
4. Important discussion points
5. Risks or blockers raised
6. Items for next meeting

Format professionally for circulation to team.

Prompt: Meeting Agenda

```
Using the project state document, generate an agenda for our weekly check-in meeting on [date].
```

Include:

- Review of action items from last meeting (attached)
- Key decisions needed this week
- Updates on [specific milestone]
- Time allocation for each item (60 min total)

Format as a structured agenda with objectives for each section.

Example Project Overview: "[Beyond Zero](#)"

AI for Project Management

Using the “Project” feature in Claude or ChatGPT

The screenshot shows the "AI Training Project" interface. At the top left is a back arrow labeled "All projects". The project title "AI Training Project" is displayed with a subtitle "Workforce training for AI tool adoption". To the right are three icons: a three-dot menu, a star, and a lock icon with the text "Only you". Below the title is a large input field containing the placeholder "How can I help you today?". To the left of the input field are three small icons: a plus sign, a document with a list, and a clock. To the right are a "Sonnet 4.5" dropdown and an orange upload button with an upward arrow. A message at the bottom of the input field says "Start a chat to keep conversations organized and re-use project knowledge." On the right side of the interface are three sections: "Memory" (disabled), "Instructions" (disabled), and "Files". The "Files" section contains three small document icons and a placeholder message "Add PDFs, documents, or other text to reference in this project.".

← All projects

AI Training Project
Workforce training for AI tool adoption

... ⭐

Only you

How can I help you today?

Sonnet 4.5

+

Start a chat to keep conversations organized and re-use project knowledge.

Memory

Project memory will show here after a few chats.

Instructions

Add instructions to tailor Claude's responses

+

Files

Add PDFs, documents, or other text to reference in this project.

Connecting to Data Sources

How LLMs Can Access Your Information

- LLMs need data to provide context.
- There are a number of ways to link data to chat sessions beyond just uploading each time.
- Most LLMs can natively handle PDFs, word, spreadsheet, images.
- Remember: The context window is still your biggest constraint; provide data sparingly.

Method 1: Direct Uploads

- Drag & drop files into chat



Method 2: Project Files

- Persistent access across all project conversations
- Limit on aggregate size of files per project

Method 3: Shared Drive Integration

- Google Drive, Dropbox, OneDrive, SharePoint
- Enable in settings → search across all files



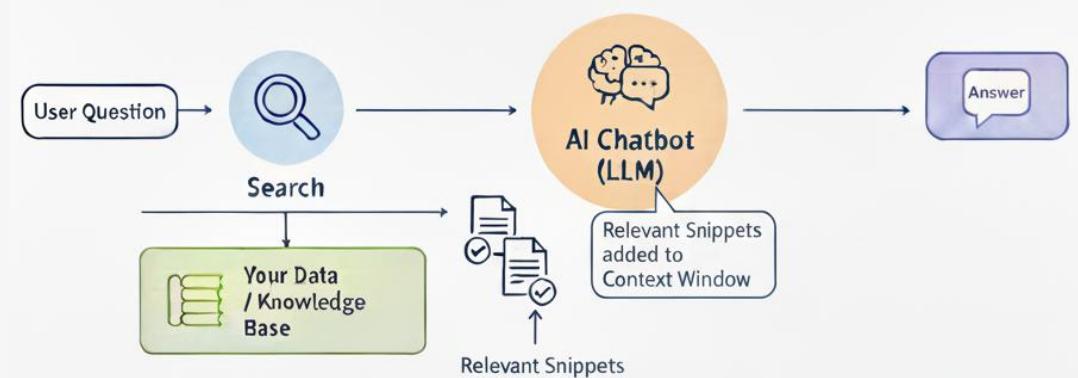
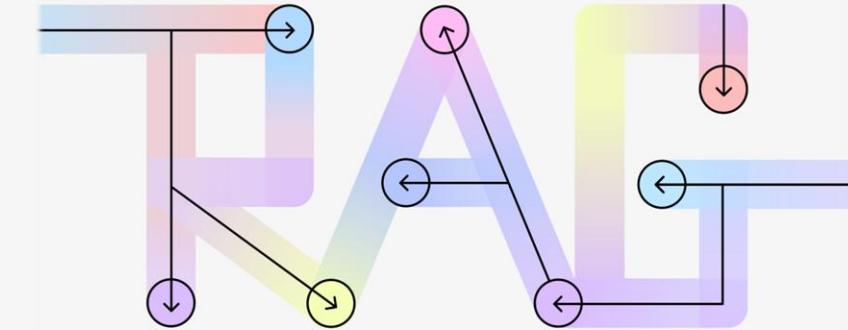
Method 4: Model Context Protocol (MCP):

- Connect AI to external tools & databases
- Examples: monday.com, Slack, GitHub, custom databases

Connecting to Data Sources

But *how* LLMs use your data differs by method

- Large data stores (eg: Google Drive) can often return too many files, which will overwhelm the context window.
- Instead, LLM connectors employ a technique called Retrieval Augmented Generation (RAG) to supply the LLM with data.
- LLMs search these data sources for documents that are relevant to the question being asked.
 - “Chunks” of documents are returned and passed to the LLM for inclusion in the context window.
 - This is not as effective as passing entire documents to context window, but is a necessary trade off for large data stores.



Data and Quantitative Analysis

LLMs can be powerful tools for investigating data

- Claude, ChatGPT and Gemini are all able to natively handle Excel spreadsheets
 - But Claude is vastly superior right now
- Under the hood, the LLMs are writing code and calling tools to perform requested data analysis
- LLMs can also clean datasets!
- Uploading datasets in .csv format (comma-separated values) often makes it easier for the LLM
 - Include data dictionaries to provide context

Example:

Explore and analyse changes in fuel consumption ratings for vehicles sold in Canada over the past ten years.

Use the following open data set:

- [*Fuel Consumption Ratings \(NRCan\)*](#)

Data and Quantitative Analysis

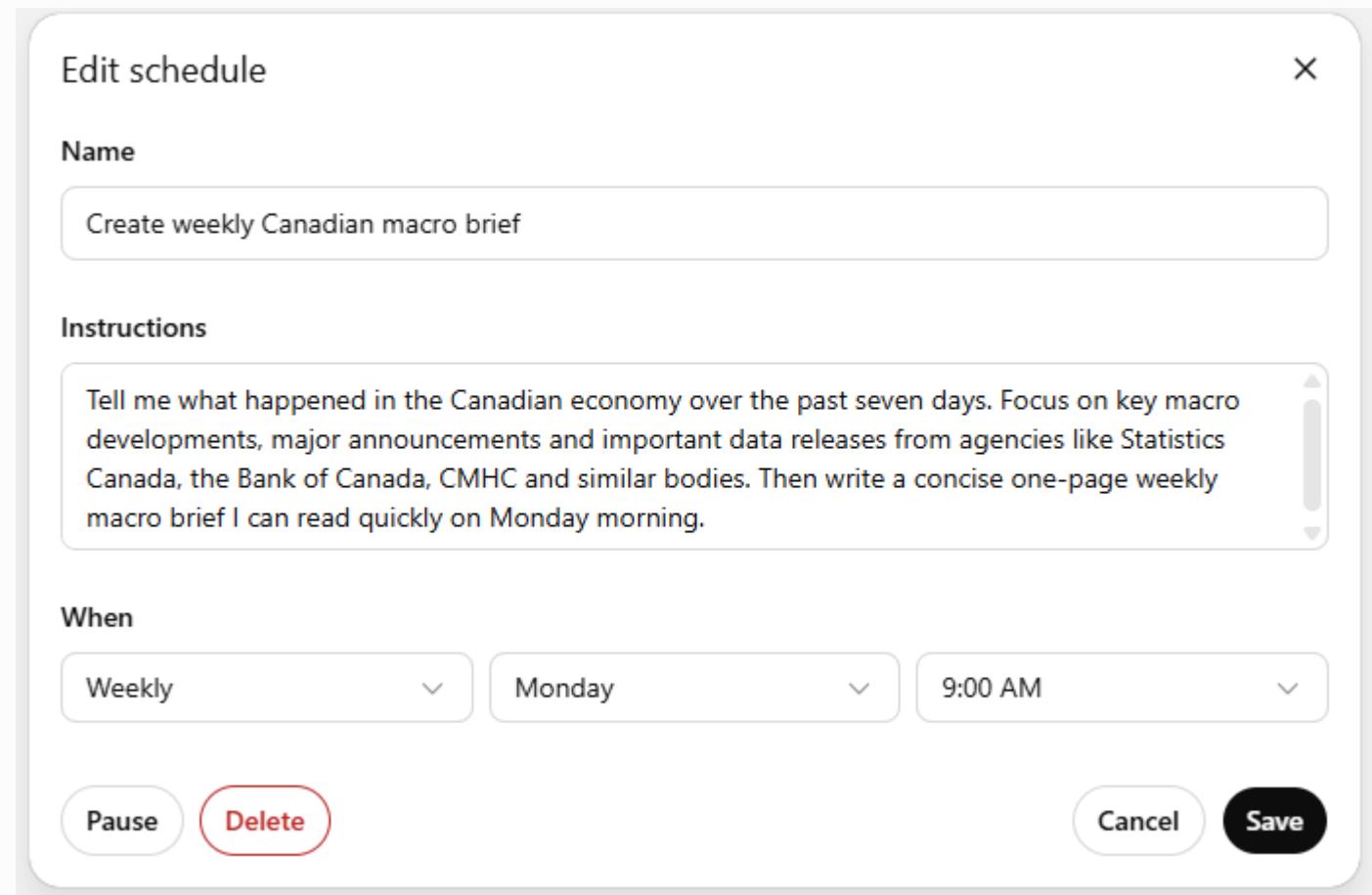
Fuel consumption ratings example

Process Step	Activity	Example
1. Explore Data Set	<ul style="list-style-type: none">Generate table of average fuel efficiency by manufacturer	Transcript: chat Output: csv , md
2. Build a Model in Excel	<ul style="list-style-type: none">Build model that calculates value of fuel efficiency savings between two vehicles	Transcript: chat Output: xlsx
3. Investigate Trends and Answer Detailed Questions	<ul style="list-style-type: none">What vehicles have shown biggest increase in fuel efficiency over 2014-2025?What was the average increase in fuel economy from introducing a hybrid model?	Transcript: chat Output (fuel efficiency): xlsx Output (hybrid introduction): xlsx
4. Generating Insights from Data	<ul style="list-style-type: none">Ask model to generate insights.	Transcript: chat Output: md

Productivity Techniques

Scheduling research or analysis in ChatGPT

- ChatGPT allows you to schedule LLM queries to run daily, weekly, or at custom intervals.
 - Set up by simply asking ChatGPT (eg: "Create a new weekly query that does X")
 - Access existing queries via Settings → Schedules
- Can be a very useful tool for staying on top of particular topics and automating routine tasks

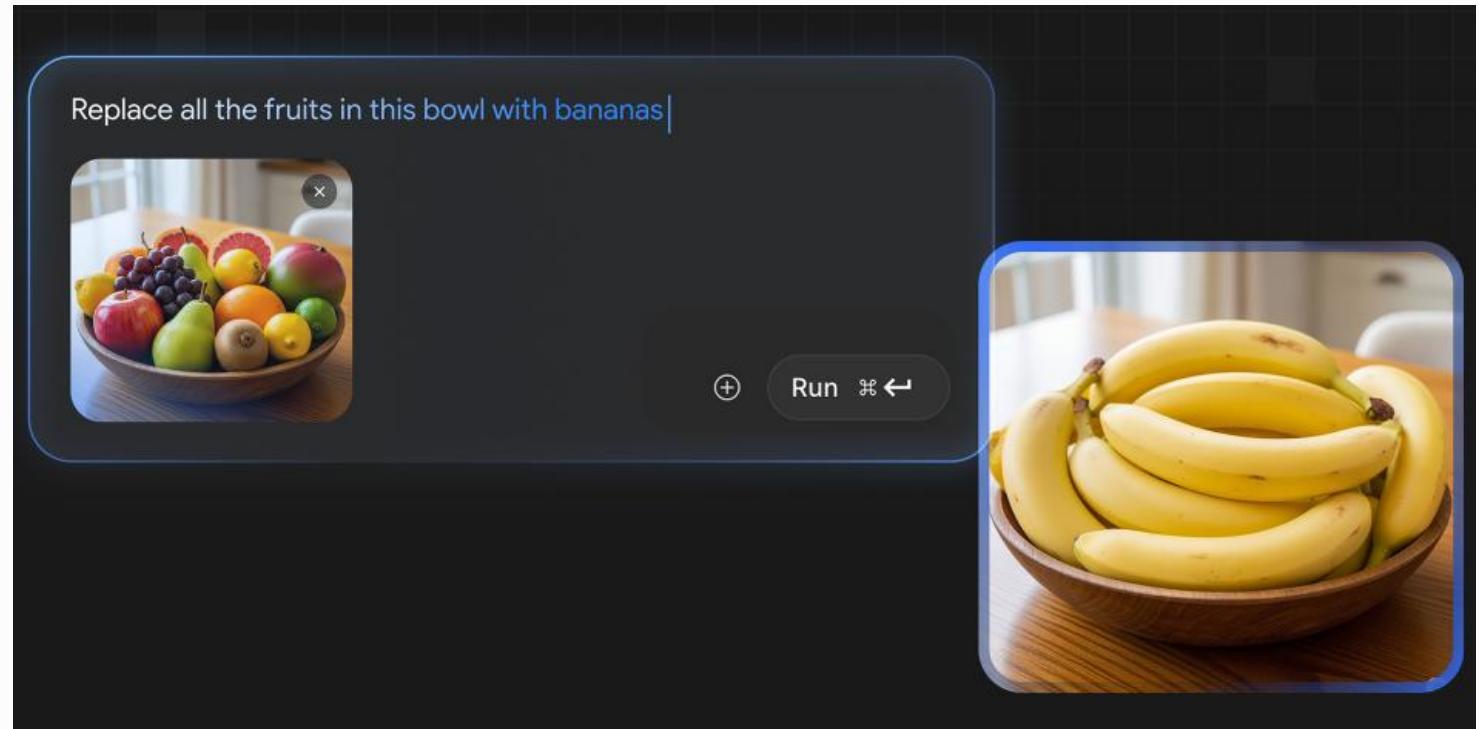


(example)

Productivity Techniques

Generate and edit images with Nano-Banana (Gemini 2.5 Flash Image)

- Many image generation models exist (DALL-E 3, Midjourney, Stable Diffusion, etc), but Google's "nano-banana" model allows sophisticated edits to images using text only prompting.
- Use via the Gemini interface and ask model to create image or upload an existing image and ask for edits.
- Very helpful for simple graphic design, icons, diagrams
- Not perfect! Often requires multiple tries to get something high quality



(example)

Productivity Techniques

Explore and analyse multiple research sources

- Google's NotebookLM allows you to explore and summarize up to 50 original sources: PDF, text, Word, even audio (podcasts or speeches) or video (Youtube)
- Ask questions across the documents, summarize data, generate "mind maps".
 - Provides direct citations back to original documents to allow for verification
- Useful for exploring data sources, surveying across different papers, and for self-education (eg: text books, reference manuals)
- Uses RAG for searching, so no guarantee results are exhaustive. But likelihood of hallucinations is very small.
- Can generate audio overviews (podcasts!) of documents.

>NotebookLM

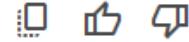


The Rapid Adoption of Generative AI

7 sources

These sources collectively examine the rapid adoption and usage patterns of generative Artificial Intelligence (AI) tools like ChatGPT, Claude, and Copilot across various demographics and professional settings. Research from Anthropic and OpenAI reveals that while AI adoption is fast and globally widespread, it is highly concentrated geographically in high-income countries and disproportionately used for tasks in computer, mathematical, and writing-intensive fields. The studies indicate a split between enterprise users focusing on automation (delegating complete tasks) and consumer users often seeking augmentation (collaborative help, guidance, and information), with some evidence suggesting high per-capita usage countries shift toward augmentation over time. Furthermore, data on Copilot users highlights that firm-specific factors are powerful predictors of AI use, leading to measurable changes in work habits, such as reduced time spent on emails and faster document completion, although usage varies significantly among individual workers.

Save to note



Video Overview

Audio Overview

Mind Map

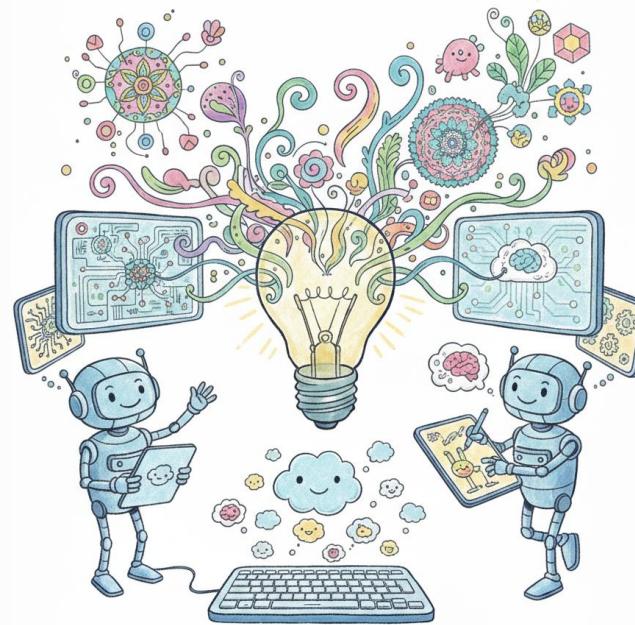
(example)

Productivity Techniques

Enhancing creativity via brainstorming and prototyping

Brainstorming

- LLMs can be very helpful with brainstorming
- Provide context via project overview, background research materials
- Use voice dictation to free you from typing into blank screen
- Ask LLM to keep track of ideas as you add them via message dumps
- Periodically summarize and organize ideas
- Generate document at end of session



Prototyping

- LLMs significantly reduce cost of creating prototypes: draft versions of articles, websites, images, etc.
- Instead of carefully creating one version of a document, consider generating multiple versions earlier in the process
 - Eg: Write five versions of this article for The Economist, each with different angles or core theses.
- Choose which one is best or even synthesize elements from different versions.

Additional Resources

For further reading

Title	URL
AI Use Cases in Project Management	https://thedigitalprojectmanager.com/project-management/ai-use-cases-in-project-management/
NotebookLM: The Complete Guide	https://medium.com/@shivashanker7337/notebooklm-the-complete-guide-updated-october-2025-1c9ebf5c14f6
Introducing Gemini 2.5 Flash Image (“Nano Banana”)	https://developers.googleblog.com/en/introducing-gemini-2-5-flash-image/
Claude can now create Excel files and PowerPoints	https://www.tomsguide.com/ai/claudie/claudie-can-now-create-excel-files-and-powerpoints-for-you-heres-how-to-use-this-new-feature
Advancing Claude for Financial Services	https://www.anthropic.com/news/advancing-claudie-for-financial-services

Thank You!



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