Benefits of AI for Improving Workflows

While AI usage often sparks discussions around ethics, security, and other concerns, there are many safe and time-saving ways to improve your workflows. Whether you're not a pro with Excel, creating batch files, or dabbling in programming, AI tools can offer basic solutions and kickstart your learning journey.

Step 0: Experiment with AI Tools

Before diving into serious work with AI, start by experimenting with a few tools. This will help you get accustomed to their interfaces and the conversation style of different models. Each request you send to the AI is a "prompt," and refining these prompts to get the desired results is a skill to develop. Begin by asking questions in your field of study so you can verify the information's reliability. Remember, while AI can be incredibly informative, it's not perfect and can sometimes "hallucinate" answers instead of admitting it doesn't know.

Step 1: Identify a Need

Identifying a need is broad, so let's start with a simple use case. Suppose someone sends you a list of items in plain text, and you want to clean up the data for import into Excel without wasting too much time. You can give the AI a specific prompt with instructions, and it will complete the task. You might need to fine-tune the results or rephrase your prompt if the AI doesn't get it right initially. Once you master conversations with the tool, it can save you a lot of time!

Example Prompt: "From the following list, remove all lines containing duplicate values, and remove the email address content including and following the @."

Jimmy jimmy@xyz.edu

Tilly tilly@yzk.edu

Tammy tammy@tyz.edu

Tony tony@xtm.edu

Jimmy jimmy@xyz.edu

Should return:

Jimmy jimmy

Tilly tilly

Tammy tammy

Tony tony

(Side Note: Avoid using AI for handling protected information from your organization. Consult with your organization to determine if there are secure AI tools for such data or policies that dictate their usage. If you need to develop a process for protected information, use test data in a similar format but without identifying information to build the process in Step 2 below.)

Step 2: Learn How to Automate the Process

For the example above, you could automate the process in Excel without AI. If you're interested in learning more about Excel, rephrase the prompt as: "How can I accomplish this in Excel? Remove all lines containing duplicate values, and remove the email address content including and following the @ from the following list:"

Jimmy jimmy@xyz.edu

Tilly tilly@yzk.edu

Tammy tammy@tyz.edu

Tony tony@xtm.edu

Jimmy jimmy@xyz.edu

The AI will provide step-by-step instructions to replicate the process in Excel. Follow these steps, save the document for future use, and apply what you've learned to similar tasks. If you get stuck, or something doesn't work as suggested, inform the AI which step didn't work and it will try another set of steps. Usually this works, but your mileage may vary. Some tasks may be too complicated to do all at once; breaking it down into smaller steps may be a better way to approach those.

Step 3: Refine and Repeat

Using AI for the heavy lifting is just the beginning. Start back at Step 1 with a new problem, refine it, learn it yourself, and repeat. While AI can save time by doing the work for you, it's even more beneficial to use it as a tool to learn how to perform these tasks independently.

Keep in mind the limitations of AI—it can "hallucinate" incorrect data, so always double-check the information and review it for errors. AI is not yet a substitute for the human brain, so a guiding human hand is crucial before, during, and after using AI. This process has helped me learn more advanced Excel features and basic programming. It's essential to go through the steps yourself to reinforce your learning and identify mistakes in the process. If you point out a mistake to the AI (e.g., "Step 2 didn't work, how else can I do this?"), it can usually recover and provide an alternative solution.

With AI as a personalized tutor, you have the opportunity to be a lifelong learner!