



AI is Ending Work as we Know It, Slowly

Every business should be looking at adding artificial intelligence to their work flows by now. Your competition is doing it, and speeding up production or creating new services that were formerly impossibly labor-intensive.

- Hardee's and Carl's Jr fast-food restaurants are testing 'Tori', an order-taking AI for the drive-through lanes. Advantage: It's so good at suggesting extra items that they ran out of apple pies in their distribution center.
- Computer security vendors are claiming that they're using AI to more quickly detect ransomware by recognizing behavior. They've claimed they were doing this previously, but the buzzword then was 'heuristic,' meaning behavior. Advantage: AI can detect more complex behaviors, or sets and

sequences of them, then a simple 'watch which services are used' monitor.

- Meanwhile, on the side of chaos and malware, there are versions of ChatGPT, under other names and from mostly-hidden owners, that are already in-use for creating malware and spam campaigns. Evil Advantage: Every email and program is slightly different, and undetectable by the old 'recognize the file like a spell check' methods.
- This newsletter is now faster to create using AI. Web site creation is faster, too. I'm still writing content myself. The images, however, are now mostly created by generative AI. Before this year, I used stock art, or screen captures, or took a picture. Advantage: Time saved, from an hour to a day per issue. For the image below, I told an AI to create "robot sits at a desk, writing a newsletter." Took 3 seconds, and an extra minute to crop it and size it. Some AI-created images need touchup work, but it's frequently easier to just generate an additional set of 4 images instead.

This particular genie is out of the lamp now, and no legislation is going to slow it down. We just have to keep up as AI spreads through the usual technology and malware cycles, either good or bad. For everything, there's a proof of concept, then a hand-built prototype, then a production model, then build it in bulk, then do it as a service, and connect it to other stuff. And repeat.



Jobs

News in July was reporting that generative AI could replace 30% of the jobs in America by 1930. That's just typically-bad network news reporting on tech in general. The actual research says "30% of hours worked today could be automated by 2030." Hours are not jobs. Because there are labor shortages, it does not mean that jobs would be reduced by 30% overall. Here's the original research article:

<https://www.mckinsey.com/mgi/our-research/generative-ai-and-the-future-of-work-in-america>

I don't doubt the ability of AI to do those jobs, but I do doubt the capacity of business to do the conversion of all those jobs, and the ability of the chip industry and the cloud farms to provide the AI systems, and the internet to make it all connect. So yes, but not by 2030, in my opinion. And for many jobs, AI will just reduce the worker shortage, and not eliminate any jobs.

These are not just entry-level jobs at the drive-through, or running the deep fryer inside. Yes, "Flippy" the burger-flipping robot is on the way to White Castle restaurants. No, it's any job that requires extreme levels of pattern analysis, like understanding language, or seeing when a burger is safely cooked, or reading an xray, ultrasound, or a CAT scan. Doctors who read charts and dictate diagnosis won't be replaced, but they'll be expected to work with an AI partner, and that means getting more done with fewer doctors. Great news, as there's a shortage of medical staff right now.

Action Items

Decide what you do in your business that could be automated, or, more likely for small businesses, what do you do that would benefit from bigger power tools? That's AI for me; it's a power tool for creating images. And sometimes creating a rough draft of a blog post, which I'll then rewrite in a more lively way. It doesn't replace writing or creating illustrations, it just adds massive power.

Large corporations are already gearing up to use APIs to create their own internal systems that boost productivity. An API is an Application Programming Interface, basically a 'how to program' set of instructions that can teach very specialized tasks to an AI. Small companies won't have the scale to do that, but AI services are already popping up online. In a search, I found multiple AI phone virtual assistants, and expect them to quickly compete with outside phone answering services.

Looking for work, or know any students? It's rapidly becoming essential to understand how to work with AI tools. There are already AI Expert Certification classes and testing programs. It's a basic business skill, like using a spreadsheet now, or using Gregg shorthand back in the 20th Century.

The low-end jobs are converting from a crew to run a branch of a service business, to one educated human with real skills to supervise and repair the AIs and robots. Oh, and a dog. The dog's job is to stop the human from tampering with the robots and AIs.

AI Definitions

Still getting up to speed on generative AI? Here's a starter set of definitions.

Upscaling

Makes an image larger by using AI to smooth the edges and maintain textures and sharpen details. Unlike using a photo editor program to enlarge an image, it's not just making bigger dots; it's actually removing texture noise and smoothing jagged 'stairstep' diagonal lines.

Generative

As in generation and generalization. The AI reads all there is to know relevant to a prompt in its available education, known as the training data, and creates one or several responses to the output requested. The result may be spectacularly original and random, or it may, more often, be an assembly of good materials seen elsewhere into something bland but mostly accurate. That's pretty much how children learn, but AI's may fail to learn very basic things. (See hallucinations below.)

Outpainting

Starting with an image that has details cut off, or that has to be part of a larger image, an AI looks at an image and uses generative methods to suggest completions for the outside of the art. It's also called uncropping. For example: The dog and car image on the left was outpainted to complete the car.



Inpainting

Useful for erasing and replacing parts of an image, like removing a distraction from a photograph, or an AI hallucination that just affects a part of an image. The AI either fills in the background, or generates several suggestions for filling in an area marked for replacement. Like all AI generative art, some inpaints are good, and many are just random junk.

AI Hallucinations

When an AI just goes off. Stupid. Or for conversational AI's, angry. It's not that they don't understand an instruction prompt; it's that they don't understand the subject material, or Earth biology, or what they're looking at, to know that animals on this planet have certain numbers of arms, fingers, and heads. Or when you ask for a school of fish and one turtle, not to invent turtle-fish.



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