Now I want to talk about advanced prompting and where you go from here.

Some of these concepts, which I'll introduce, I've mentioned or alluded to earlier in the module. So it's not going to be all brand new, but hopefully I can bring this all together to give you a glimpse of what higher levels of prompt engineering mastery look like and where you head from this point.

So if you get very good at prompting, you get from point A to point B. So you get good at the engineering, You can make those prompts work reliably, given a specific set of inputs. You get lots of practice with those core ingredients, solving your problems. And you start to develop an intuition around this. There's a good question of where does this all go.

Two different directions. So if we think of most of prompt engineering and prompt engineering sort of 101, right, your introduction. You're using AI mostly as an assistant where you're delegating individual tasks or at some point, entire bundles of tasks to the Large Language Models and the technology that's built around it in order to accelerate your progress towards your goal or a result.

Now, the technical term for this is factored cognition, which is, again, it sounds fancy. But it just means that there are certain things you normally would think about or think through or information that you would digest and synthesize and make useful given whatever it is you're trying to do at a higher level. You would have had to do all yourself. You have to go read the book. You have to find exactly the information you want. You have to watch the YouTube video, the whole tutorial of how to fix your carburetors or something like that.

And instead of having to perform the retrieval and the synthesis, cognitive steps to make sense of it and package up the information in such a way that you can then act upon it, you can now delegate those cognitive intermediary steps to AI. So you could copy and paste a YouTube transcript of how to fix your particular model of carburetor. Add some context in spoken language of here's what's happening with my car. Snap a photo of the thing. Provide all that. And then AI is going to make sense of it and provide you with some options in terms of what you can do next. And then you work with it to make forward progress.

So that's like most of how you're going to be using AI. Then where it gets interesting is if you get to a high enough level of reliability where you want to scale this task and you want to 10, 100X the throughput. And I'm using this example of taking transcripts for calls and then let's say you're in sales or something. And then turning that into nodes for a CRM or incorporating it into some kind of a standardized status update template or something like that for the team. You can take your prompt and then ultimately use AI to actually help you encode it into traditional software. So if you've never coded before, if you've never written software, it's a superpower for sure, to be able to do this. It's extremely self empowering because you can now have direct access to the full capabilities of your computer.

And you can take your expertise and turn it into a capital asset.

So I think it was Mark Andreessen. I don't remember if he came up with this phrase, but he talked about it on an interview I heard once where he said, “Software is fundamentally a technology that turns labor into capital.” So if you're taking a wage or you're trading your labor, your time and attention for a paycheck, you're always going to be in that loop. So it's very hard for you to scale that. But if you can take your expertise and your knowledge and turn it into something that works without you, and that's what capital is. And the traditional sense, like it's machinery that does something. If you own it, you maintain ownership of it, you can sell it to somebody or you can lease it to them. You can rent it out to them.

And so there's a certain level of prompt engineering where you figure out something that works super well. It delivers a particular result that helps somebody else get to their goal. Then you can encode that in software and sell it to them. This is something I've done. I get paid a monthly recurring fee for software that I wrote in helping a client basically do a bunch of prompt engineering around tasks that they didn't want to do, but needed to get done. And they continue to use it and I charged them to lease the capital asset.

So that's something that's available to you. And it's doable now in a way that wasn't before because it would have required an entire team, designers, engineers. It's very complicated just to get software spun up in the first place. But literally, if you're tenacious and you are curious and you have an open mind, you can take everything you've done. Again, give it as context to the computer and say, “I want to turn this now into a self serve web application or something.” And you just work with it and ask a question. Say, “I don't understand what this technical term is. What do you mean use the terminal or deploy an application?” Like all this stuff that seems very esoteric. You can work with it to have it explained to you how to build the software and thus turn your labor into capital and gain leverage to grow your business, whatever it is you want to do. Scale what you're doing.

Fine tuning goes here. That's when you hit like a really crazy level of scale. That's one thing that can happen. Once you get to the really high levels of reliability and repetition. Everything else, you get those prompts in a good shape. Now, let's say once you've done that, the further out on the frontier you get in your area of expertise that you've developed. Whatever it is you do professionally. That point B, where it is you want to get to, is going to require a lot more reflection and synthesis of everything you've learned being out on the frontier to make sense of that raw data and choose yet another goal to go pursue.

And this is where you might find yourself using AI more and more as a thought partner. So to try to figure out how to narrow in the cone of uncertainty around the direction that you want to go in. And crystallize and concretize that goal that you have either the sort of the medium term or immediate or in the present.

And I found myself as I figured out how to delegate more and more, I'm spending more time thinking at a higher strategic level around what my goals are and trying to make sense of all these new things that are on a frontier. Like a lot of the work that I do, in some ways, it's not that new cause it's a combination of like strategy plus process, a business process, automation and development of software and things like that.

But some of the problems are new and I just have to spend more time really thinking things through at higher levels. And then finally, this is the paradox of AI and prompt engineering mastery, which is that when you get far enough out on a limb, on the frontier with this stuff in your area of expertise, you're going to hit a point where AI, even as a thought partner, is just not really useful to you anymore. Because you're dealing with concepts and information that is simply not accounted for in the model. And you get to make sense of it yourself. You work with other people, but also just silently reflect like in solitude, journal, draw things out, just spend a lot of time thinking and obviously doing things like running experiments.

But to make sense of it, turn it into some kind of system that you can then descend back that this sort of prompt mastery, prompt engineering mastery ladder. Come back to the point that you can go, “Okay, I have this new heuristic. I have this new framework, this way of doing this particular set of things that maybe nobody's ever done before. I need to translate that now into prompts. Turn it into software. Use it as a capital asset to gain leverage, et cetera.”

And you have to come back down, but you're doing this kind of weird motion where it's like “Alright, delegate enough of what is known to AI so it frees you up to do this higher level thinking.” You have to work with AI to make sense of things until maybe you come back and you delegate more. And you sort of do this and keep going until you get to the point where you're like, “I'm doing something that's so new. I need to spend a lot of time just in the sort of a monk mode, like at a monastic retreat, just thinking naked is the way I put it.”

It sounds weird to say it, but the highest, most advanced level of prompt engineering and using AI is to be in a situation where you don't use it at all. And that is the best thing to do. So that is really the ultimate paradox of all this. The goal of mastering AI is to get to the point where it's just not useful to you anymore. And you have to make sense of things that the model has never seen.

All right. Hopefully that gives you a little bit to reflect upon and think about. As you consider your prompt engineering mastery journey and use the technology more and more.

Feel free to ask any questions and I look forward to seeing you for the final lesson next up.