To preface and add some context, the industry I work in is tabletop games, in which the game design portion of the field has traditionally not been protected by IP law in the US. Copyright will protect art and rules-as-written, but both can be completely different but still convey the same gameplay. Process patents are occasionally taken out, but rarely hold up well in court and aren't really designed with games in mind. Trade dress suits are the thing that most frequently get results legally (specifically related to confusion with an existing brand or product), which again often does not directly correspond to protecting the gameplay. That's not to say that some aspects of those laws don't help protect games, but it is to say that it's often like trying to hammer in a nail using the back end of a screwdriver – you may succeed, but it's clearly not how the tool was designed to be used.

So while I absolutely understand and agree with the idea that IP laws promote and protect innovation, I'm also well aware that innovation can and still does happen despite the paucity of those protections. And because of my experiences I'm aware that there's not a magical line that gets crossed that makes something "my creation and deserving of protection", because… well… there are plenty of things that just don't get that kind of protection already. And some amount of things that get protections that probably shouldn't (the amount of lawsuits around simple melodies is a glaring example). So we're not talking about the universe imbuing worth upon things, we're talking about things like "who's work is the output of an AI, legally?" and "is it worthwhile to society for that output to be protected?".

When I look at AI generated things, and especially AI trained on large amounts of human input, I do not feel that is something that NEEDS protections to encourage innovation (it will certainly continue to get used with no protections in place) or to benefit society. Or at least, that's how I feel about the most common implementations of AI that are currently available. I can envision different forms in the future that I may feel differently about.

What makes me feel this way?

Let's look at internet search – googling things. That can and does use AI, but even in the absence of strict "AI", it still uses algorithms and user input. Those algorithms are built on a lot of things, including previous human interactions. It's not just a straight "look for matching words on the page", it includes what I've searched for previously, what pages I've visited recently, what other people have searched for, what actually got clicked on, and so forth. It is my inclination to say that there is no set of prompts that I could generate for a search that deserve IP protections. I could absolutely spend a lot of time crafting prompts, using both known factors and trial and error. I might even come up with a specific set of results that are marketable, or a prompt that is marketable. For example, perhaps I find a good way to phrase a search that will always generate the most dollar efficient local labor to build a house, using several companies rather than one (so the carpenter, roofer, electrician, plumber, etc, and not a "single company" solution). This could absolutely have value, enough that other people might pay me for the results or for the prompts. There are entire websites built roughly on this premise – do you want to build a computer but it's inconvenient to sift through all the stuff necessary, and find the most cost efficient parts that are also compatible with each other? There are websites for that. But is this a creative work that needs IP protection? I think most people would say no – that those businesses were already out there for the searching, and that it was the tool/algorithm and not the individual's inputs that added most of the value to the process of finding them.

Similarly, what if I use a language translation site? The sites that effectively use colloquialisms, grammar, and so forth are comparable to AI already. I don't know German, but what if I put in English into a translation site and get the German version of what I type? Again, I think most people will agree that "simply" translating text isn't something that needs those protections. To be clear, if my English

words have value in and of themselves, I'm ok saying that the German translation has value too. If my English words are unmarketable but the translation that comes out in German IS marketable, even though I speak no German and perhaps didn't know what was going to come out the other end, did I generate something of value, or did the algorithm? Perhaps it's valuable because it becomes a hit song in German. What if it was ALREADY a hit song? Is my PROMPT still valuable and worthy of protections? I think it's clear that I shouldn't be able to copyright a song that already exists, and I think that also means that I don't get protections on the prompts that generate that duplicate song.

I think this points at neither the results nor the prompts/inputs having value when put through the algorithm UNLESS the prompts/inputs had value completely on their own, even if they were never put through an algorithm. If my input was a new hit song in English, I'm ok saying that has value (and deserves protection) completely separate from its interaction with the algorithm, and thus once it's run through the algorithm, if that result also has value and does not otherwise infringe on someone's pre-existing rights, I'm ok with that result ALSO having value/deserving protections. But the starting input needs to have meaningful value first, and the results should deserve no protections that the inputs couldn't have gotten on their own.

And it seems to me that this is VERY directly comparable to large-language-models. "Please rephrase the following sentence:" is, I would argue, the same thing as having an algorithm translate the sentence to a different language. Even though the sentence stays in the same language, all the same principles apply to what a good different-language translation would be. Context and colloquialism and meaning and "this would mean something else in the new language so it needs to be rephrased" are all present and necessary in both. "Please rephrase this sentence so that it's a paragraph" is no jump of logic at all from that starting point. "Please rephrase this sentence so that it's an entire book" still works. It's an algorithmic translation of the input, but the result should warrant no greater protections than the inputs deserved on their own.

I also think there's a certain point where human modification of the results has value. There's already rules for protection of transformative works. If I open an image editing program and have it generate noise (colorful static), I think the program did all the heavy lifting. This is the case even if I change the size of my canvas to something specific, and even if I change the randomization seed until I get more pink in the upper right corner (or whatever it is I'm looking for). I get dynamic results, but none of those inputs have value on their own, the numbers I entered for the dimensions and seed aren't protectable, and thus the result is not protectable, regardless of how much effort or time I put in to it. BUT if I then used that noise as a texture in my image, overlaying colors and form and other things to it, I think there's a point at which what was generated could be a PART of something that deserves protections. But on its own? no. And I agree that the fuzzy "when do you reach that point?" is a harder question to answer. But I think it's easy to answer the part regarding straight algorithmic inputs and outputs.

I think the harder questions are things like "is it ok for my algorithm to be trained on copyrighted/protected materials, and are the outputs in violation of copyrights?" I do think that not providing any protections to the outputs solves many of the initial legal issues. My first inclination is to say "would the output have infringed upon someone else's work if a human had generated it by hand?" If the answer is yes, I think it's obvious that it continues to be an infringement even if the machine did it... and thus is probably NOT an infringement if a human doing it wouldn't have been an infringement (but also not protectable, based on my above arguments). I think the part that's less cut and dry is whether putting a lot of infringing material in as input automatically makes what comes out infringing material. If a human could be "inspired by" another human and make art in a similar style, but which is

not considered to infringe, I think a machine can too. But I can at least see the arguments the other way on that (that the machine doesn't have agency so all agency is based on the inputs).

TL;DR – AI output should not have more protections than the prompt input would have had on its own if the AI wasn't present. In most cases this means AI output should not be protected by IP law. AI output should not be considered an infringement unless it would have been considered an infringement if a human had done it.