

## When Lawyers Chat With Chatbots About Patent Drafting

By **Joe Hetz and Marc Richards** (February 7, 2023, 5:29 PM EST)

Ever since OpenAI's ChatGPT launched in November 2022, many in our field have wondered what the implications are for patent prosecution.

For those that do not know, ChatGPT is considered to be an online chatbot with artificial intelligence. It is a conversational language model based on the generative pre-trained transformer, or GPT architecture, which is a type of machine learning model that is trained on large amounts of text data to generate human-like text.

ChatGPT is fine-tuned for conversational tasks such as answering questions and responding to prompts. ChatGPT can be used in a variety of applications such as chatbots, virtual assistants and language translation. It is able to understand and respond to natural language inputs and can generate human-like text as its outputs.

We wondered how ChatGPT could be useful in patent prosecution, for example, in drafting claims or evaluating patentability, and whether it could be a joint inventor. So, we decided to ask ChatGPT what it thinks.

For starters, we asked ChatGPT to draft independent and dependent claims on "a bicycle." Here are some of the claims it generated:

1. A bicycle comprising: a frame; a front wheel rotatably attached to the frame; a rear wheel rotatably attached to the frame; a pedal mechanism operatively connected to the rear wheel, wherein the pedal mechanism includes a pedal crank and sprocket;

a handlebar attached to the frame; and a brake system operatively connected to the front and rear wheels, wherein the brake system includes brake levers attached to the handlebar and brake pads in contact with the front and rear wheels.

2. A bicycle as claimed in claim 1, where the frame has a folding mechanism for easy storage and transportation.

We were impressed. Somehow, ChatGPT figured out what the components of a bicycle are and put them together in a form that looks like a real claim.



Joe Hetz



Marc Richards

But what impressed us the most was the dependent claim to the folding mechanism. We would have expected dependent claims to gears or other standard features of a bicycle, which it did generate, but a folding mechanism was a surprise as it's a somewhat unusual feature.

After reviewing the claims, a few questions came to mind, and we wanted to get ChatGPT's take on them.

### **Can ChatGPT be a timesaving tool for a patent practitioner?**

The idea of ChatGPT generating a draft claim set sounds like it would be a big time saver for a patent practitioner. However, the above draft claim on a bicycle, while impressive, needs quite a bit of work.

For example, from a claim language perspective, why use the phrases "attached to" and "connected to" instead of just picking one of them? And what about the prior art? Do "pedal crank" and "sprocket" need to be recited as being part of the "pedal mechanism"?

Does ChatGPT know what qualifies as prior art? And how good is the claim anyway? By the very nature of how it works by being trained on the state-of-the-art, is it even capable of generating a claim that is novel and nonobvious?

Our conclusion is that ChatGPT is probably not a great time saver at this point — and may even be a time waster — as it's probably more difficult and time consuming to work off of ChatGPT-generated claims than to simply write claims from scratch.

Over time, ChatGPT may become sophisticated enough to provide high-quality claims that would require only small tweaks by a patent practitioner. But, for now, ChatGPT seems more like a neat trick rather than a timesaving tool.

We asked ChatGPT what it thinks, and it seems to agree:

Using ChatGPT to draft a patent application may save time, as it can quickly generate text based on a given prompt. However, it is important to note that a patent application requires a high level of legal and technical expertise, so it would still need to be reviewed and edited by a patent attorney or agent before being submitted. Additionally, using ChatGPT alone may not save money, as it could require additional resources to train the model and ensure its output is of sufficient quality.

### **Can ChatGPT be an inventor?**

If, in a group invention harvesting session, a human suggested that the bicycle could have a folding mechanism, that person would most likely be included as a joint inventor for the above claim set.

So, why shouldn't ChatGPT be listed as an inventor if it's the one who suggested the same idea? The law on AI inventorship is evolving and the Supreme Court may eventually weigh-in on the topic, but the U.S. Court of Appeals for the Federal Circuit in the Aug. 5, *Thaler v. Vidal* decision held that an AI system does not meet the definition of "inventor" under the Patent Act. So, as of now, the answer is "no."

ChatGPT concurs:

As a language model, ChatGPT does not have the ability to invent or create physical products or processes. Therefore, it would not be able to be named as a patent inventor. Patents are granted to

individuals or organizations that have developed and can prove they are the original inventors of a new, useful and non-obvious product or process. While I can assist in the creation of a patent claim, I am not able to act as an inventor.

### **Can ChatGPT be used by an examiner to establish obviousness?**

In examining a patent application, an examiner may ask ChatGPT to draft a claim on the general subject matter. Because ChatGPT generates patent claims based on the state of the art, is the resulting claim, by its very nature, obvious? Is ChatGPT "one of ordinary skill in the art"?

ChatGPT doesn't think so:

A patent claim generated by ChatGPT would not be considered evidence of obviousness, as it is simply a product of a language model's ability to understand and respond to prompts. The determination of whether a patent claim is obvious is typically made by a patent examiner during the examination process, who will consider prior art and other relevant factors to determine if the claimed invention would have been obvious to a person having ordinary skill in the art at the time of the invention.

### **Conclusion**

While ChatGPT has a lot of potential to assist in patent prosecution, it still needs to mature before it can be of practical use. There are many limitations on what ChatGPT can do, and the reliability of ChatGPT to respond with accurate and precise responses to prompts is questionable.

Even ChatGPT admits that it is just

a language model and is limited by the information and examples it has been trained on. Therefore, it may not be able to generate claims that are accurate or appropriate for certain fields of technology.

But based on what it can do at its debut, it wouldn't be surprising if ChatGPT, or its next iteration, becomes a standard tool in patent prosecution in the near future.

Because of ChatGPT's general purpose, the highly specialized and arcane nature of patent prosecution is better served by AI tools that are fine tuned to the practical needs of patent attorneys and agents.

Even now, patent practitioners interested in using AI-driven tools to assist their prosecution activities can find a bevy of commercially available products and services that are slowly gaining more usage in the patent community.

The AI tools range from doing prior art searches, providing patentability assessments, drafting patent specifications based on a set of patent claims as an input and proofreading patent applications.

However, we are not aware of AI software tools that have the capability to draft quality patent claims taking into consideration the prior art, potential design-arounds, and potential challenges the patent may face when enforced. The patent claims define the scope of the legal right to exclude others from practicing an invention.

This is where the art, creativity and value of an experienced patent practitioner cannot be surpassed by an AI machine, at least not yet.

---

*Joe Hetz and Marc Richards are partners at Crowell & Moring LLP.*

*The opinions expressed are those of the author(s) and do not necessarily reflect the views of their employer, its clients, or Portfolio Media Inc., or any of its or their respective affiliates. This article is for general information purposes and is not intended to be and should not be taken as legal advice.*