

INVENTION ANALYSIS AND CLAIMING: The Opposing Team¹



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T rue or false? A patent claim should capture the inventor’s contribution to the art.

The answer would certainly seem to be “true,” but it is not the complete answer. The value of a patent is not determined by how cleverly or well its claims define the product or method that the inventor designed. A patent is valuable when its claims read on what somebody *else* will market or, at least, *would* market but for the existence of the patent. If it is expected that competitors will slavishly “knock off” a copy of the inventor’s marketed product, there is no real issue—almost any claim will do. But that rarely happens. More often a competitor implementing the essence of the inventor’s teachings does so in a way that departs significantly from the inventor’s design.

Thus when we are drafting our claims—particularly what we regard to be the broadest claims—the appropriate mindset is not one of defining what our inventor has done. Rather, our mindset needs to be one of defining what some competitor may do that *takes advantage of* what our inventor has done—particularly a competitor who is intent on doing so while avoiding the claims of our inventor’s patent.

ENVISION THE “OPPOSING TEAM”

A powerful way of putting ourselves in that mindset is to conjure up the image of a potential infringer and his patent attorney. The author refers to them as the “Opposing Team.” These adversaries will be poring over the claims after the patent issues, looking either for limitations that their product does not meet, or for some way to redesign the product to that end.

Thus at the same time that we are formulating a claim we should imagine ourselves to be the Opposing Team. As each word, phrase and structural element appears on our screen or yellow pad, we should try to think of a way around it, just like the real-life Opposing Team will do. Indeed, here is how the author often envisions the Opposing Team,



standing over his shoulder at the word processor, watching for something to appear that will make it possible to design around the issued patent or argue that their product does not infringe.

This constant awareness of the Opposing Team enables us to serve as our own worst critic or perhaps, one might say, our own *best* critic. It helps us become aware of unduly limiting aspects of a claim in real time so that problems can be fixed as they arise.

Taking on the Opposing Team’s mindset can also help us identify potential arguments that the claim is too broad or ambiguous, rendering it unpatentable or invalid.

One of the author’s colleagues² analogizes the Opposing Team to a computer hacker. “I approach claim analysis much as a hacker approaches systems analysis,” he wrote in an e-mail. People usually look at a system from standpoint of what it does *right*, he observed, but

a hacker looks at the edges to see what it does *wrong*. Thus, my mindset when drafting claims is that of a person skilled in the art who reads the specification and then tries to extract commercial value from its teachings while skirting the boundaries of whatever has been claimed. I ask myself what would I do/build/argue to get around any claim, regardless of how well drafted, if I were a commercial competitor (or his shrewd lawyer). In this sense my claim drafting tends to have a pessimistic, or at least a very defensive, bent.

The inventor should also be made aware of the Opposing Team—if not by name, at least in concept—when it comes time to review the claims with her. We can explain the goal of defining the inventive concept in a way that precludes a motivated competitor from “ripping off” the invention. The inventor can be encouraged to help think about how the invention might be appropriated by a competitor without coming within the ambit of the claim in question. Inventors are often captivated by the puzzle-like aspect of this challenge and find loopholes in the claim that the attorney might never have seen on his own.

Another colleague’s e-mail put it this way :

I challenge the inventor by asking questions like: “You say that the invention requires $x+y+z$ at a minimum. If you were to find someone building $x+y$, but not using z , would you feel upset that this someone can do it without paying you a royalty?” This quickly causes the inventor to think about how this “someone” will try to get away with using the invention without using some of what the inventor thought was necessary in the presented embodiment, and focus on the kernel of the invention.

In short, the patent attorney endeavoring to further his client’s interests is aided in that task by taking on the mindset of a competitor’s attorney endeavoring to further *his* client’s interests.

INVENTION SETTINGS

The above discussion focuses on claim breadth. If a claim is narrower than it has to be, the Opposing Team may find a way to design around it while still appropriating the underlying inventive concept. If a claim is broader than it should be, the Opposing Team will find prior art that proves it to be so. By putting ourselves in the Opposing Team's mindset—by trying to “break” our own claims—we are better able to find the flaws ourselves.

Invention settings is another realm where an awareness of the Opposing Team can help us to optimally claim an invention.

An invention setting is an environment or context in which the inventive concept is manifest. (Equivalent terms are “claim perspective,” “claim point-of-view” and so forth.)

Consider, for example, claim 1 directed to an image encoding invention, where a), b), c) ... are the steps of an inventive encoding algorithm.

1. Apparatus comprising

means for generating an image signal to be encoded, and means for encoding the image signal by ...

- a)...
- b)...
- c)...

The setting for this invention is a video camera, scanner or the like because the claim affirmatively recites a means for generating the image signal. However, image encoding inventions are often embodied in integrated circuit chips, so that an effective way of licensing the patent is to license chip manufacturers—who are relatively few in number—rather than trying to chase after the hundreds equipment manufacturers who buy the chips and put them into their cameras and scanners.

Putting ourselves into the mindset of Opposing Team chip manufacturer, we should hear a pushback in the mind's ear like:

“Excuse me, but we don't infringe your claim. We don't generate the image signal. Somebody's else's stuff does. We only do the encoding.”

A case of contributory infringement and/or inducement could probably be made out. But there is no excuse for not drafting a claim in a setting that will cause it to be infringed directly if there is any way to do

it. Indirect infringement cases are, at best, complicated and expensive to prove.

It is easy enough to cast our image encoding invention in the integrated circuit chip setting. We simply assume the existence of the image signal rather than generating it within the claim.

2. A method comprising

encoding an image signal by ...

- a)...
- b)...
- c)...

A claim that defines the invention in a less-than-optimal setting can simply be thought of as a claim that is too narrow. However, we may not appreciate the implications of such undue narrowness when thinking solely in patentability terms. Claim 1's image-signal-generating means seems harmless enough, after all.

Thus thinking explicitly about invention settings when putting ourselves in an Opposing Team mindset can help surface all kinds of potential loopholes.

Next month: The “Summary of the Invention”

ENDNOTES

1. Copyright © 2007 American Bar Association. Adapted with Permission. All Rights Reserved.
2. The author thanks Henry T. Brendzel and Benjamin Lee for their insights quoted in this column.