THE COMPLEXITY OF OBTAINING (GOOD) PATENTS

BY DAVE S. CHRISTENSEN

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The last few articles stirred up some commentary, particularly on the analogy drawn to the game of chess and the potential for automation. It seems that chess in general has been a topic on LinkedIn and generated great discussions among very fine patent practitioners.

This made me start thing a litter deeper about the subject, beyond the cute literary device that I was using it for. The aspects of patent prosecution that make it like chess also makes it hard to use AI in replacing the humans in the system (at least currently). Before we move on to protecting your inventions outside of the U.S. (or your local jurisdiction), let's take a moment to further discuss some of the factors that patent practitioners take into consideration in preparing and prosecuting patent applications.

My initial thought in comparing patent prosecution to chess was from the need for a patent practitioner to think ahead, anticipate the moves of your opponent (the patent examiner), and be strategic making your own moves (e.g., making small clarifying amendments that don't change scope). I am no expert at chess, but I know that there are countless numbers of moves that a player may make. According to the Oxford Companion to Chess (cited in Wikipedia), there are 1,347 opening moves alone. And this is on a two-dimensional board.

However, unlike the game of chess, the applicant for a patent has multiple audiences and adversaries. The playing board here is not two dimensional, but rather in its own way, it is like playing multidimensional chess (if such a thing existed).

In preparing and prosecuting a patent you have to consider and anticipate the moves of multiple unrelated parties, such as:

- inventor(s)
- applicant's in-house counsel
- client's strategic plan
- patent examiner
- patent examiner's supervisor (SPE)
- appeals board
- competitor's current products

- trends in competitor's technology
- judges
- juries
- trends in legal standards
- requirements of each jurisdiction in which the applicant may want protection

It should be appreciated that taking all these factors (or more) into account is a large undertaking – add to that that you are trying simultaneously to describe solutions to complex problems. The weighing of these factors also changes from client to client and from invention to invention. Sometimes the most difficult applications to write are those that involve (in hindsight) relatively simple solutions. In those cases, you need to spend time crafting a story that lays out the problem/solution to make the reader appreciate how hard it was to arrive at the solution at the time of invention.

At the end of the day, it is the client's property (and they are paying the bills), so the strategy and how many of these factors are taken into consideration is up to them. If they just want to focus on keeping someone from making an identical knockoff (which could result in more narrowly focused claims) rather than pursuing claims the prevent design-arounds (broader claims), that is up to them. Even then the patent prosecutor should keep in mind changes in legal trends and include information in the application that may be useful during prosecution (or for when the client's business strategy/management changes two years later). With no crystal ball (and avoiding the Magic 8-Ball) for anticipating the future, all we can do in the end is our best.

As to whether parts of this process could be automated, the multifactor nature of this process is another reason why it is so hard for people to automate the obtaining of a patent. Not that some people haven't tried or had some success in using automation parts of the process, but I don't think a computer will be replacing your patent practitioner or examiner soon. I'm a mechanical engineer, but I've had a fair amount of exposure to artificial intelligence, and I've seen firsthand that you can do some incredible things with it. But AI requires training and training requires a right answer. In obtaining a patent, there is no right answer; instead, it is all about balancing the factors and these factors vary greatly, from application to application, and from client to client. Could someone train an AI to do this? Certainly. But could I explain to the AI why each word in a 40-page document was chosen with such care? Inherent bias is a problem in the AI field, I expect that whoever created the training set for this future AI patent system would have biases built-in that they wouldn't even know about based on the trainer's experience and client base.

There are some incredibly smart people in the world who could create such a system, but probably not before I retire. I expect the cost would be prohibitive and the result would not be more mechanical and not as informative to the public (the whole purpose of patents) as a well as a patent drafted by a human. (Fingers crossed!)

Finally, I often get asked questions by inventors on whether they could just write and prosecute the patent application themselves. There is no legal prohibition on this and there are certainly several books to guide them. However, when I start explaining the factors and how decisions made at the very beginning of the process can impact their chances of success, the process starts looking considerably more intimidating. So, I always tell them they are free to pursue the patent application on their own, but they need to consider whether they will have what they want, or their business needs to survive in the end.

Dave S. Christensen is a Partner and Co-Chair of the Mechanical Engineering Department at Cantor Colburn LLP
e: dchristensen@cantorcolburn.com