O'CONNER PRODUCT MANAGEMENT

Case Study: **A Better Algorithm**

Summary: The value of patents

This case study is an example of a patent that became very valuable for the inventor. It's an illustration of what constitutes a truly valuable invention.

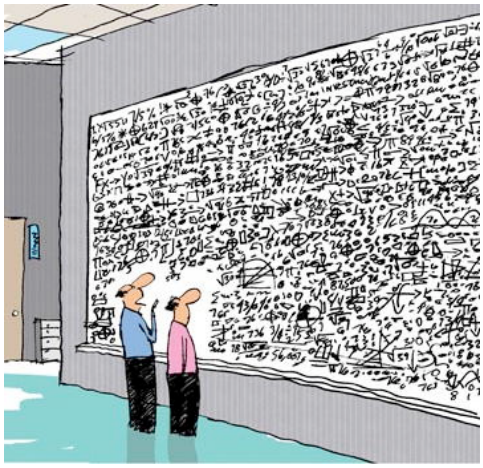
Do patents pay off?

Is it worthwhile to incur the effort and expense to get patents?

The answer (squishy but true) is: It depends on how good the underlying idea is. This case study is an example of a very good underlying idea and how it made money for the inventor. It is an example of what to look for when trying to decide whether to pursue a patent.

A former work colleague of Clint was an inveterate inventor. He would spend hours on end thinking about products and technology, trying to come up with new ideas and inventions. The guy was prolific – he generated a lot of ideas in a lot of different fields. He formed a small business, Positive Technologies, as a vehicle for pursuing some of his new ideas.

One day he started talking to Clint about how images are rendered (or drawn) on LCDs. This was back when CRTs were everywhere and LCD display panels were relatively rare. The inventor used words like "inefficient" and "dumb" and "stone age" to describe the state-of-the-art display rendering algorithms. Then he started talking about a better way to render images on LCDs. It entailed a new algorithm that was intelligent and efficient and could improve display quality and could allow displays to be updated at a higher rate.



They continued to discuss this new idea over the coming days. The discussion eventually became fairly technical, getting into details of cumulating DC bias voltages and liquid crystal relaxation rates and differential image mapping. It took awhile to absorb the concept, but eventually it became clear that every display in the world (at that time) really did use a "stone age" algorithm to draw images, and that this new method was indeed superior. Clint pointed out that no microprocessor in the world had sufficient processing power to deploy this new algorithm. The inventor's response was, "So what! Remember Moore's Law! In three years, chips will be fast enough."

This better algorithm was groundbreaking new technology that had the ability to change the way displays work, an idea that definitely merited a patent application. The inventor asked Clint to write the disclosure. (The disclosure is the main body of the patent, in which the invention is disclosed, or described in detail.) He asked Clint to do this because (paraphrasing his words), "You understand the technology. You write better than the average lawyer. And you cost less than a patent attorney."

Clint wrote the first draft of the patent disclosure for this invention – saving the inventor a lot of money vis-à-vis the fees that attorneys would have charged. The patent next passed through the hands of patent

attorneys and patent examiners and the patent approval process and was issued in the mid 90s. It has become a landmark patent in the display world.

As technology gradually caught up with this new idea, display manufacturers around the world began adopting the new algorithm, and the inventor pursued licensing arrangements with all of the major display manufacturers. This algorithm is now used in virtually every large format video display made today and the inventor has reaped very handsome rewards from the better algorithm that he invented.

The lessons in this case study: Patents can be valuable – very valuable – but to become valuable, there are a couple of requirements. The underlying idea must be very strong and must enable new technology that improves significantly on existing technology. And you must pursue the patent diligently. It's not enough to just get a patent. You must develop and sell the technology, or you must sign up licensees (or both).

A patent doesn't make money; enforcing the patent makes money.

This is also an example of a role Clint can fill in product development. He can help identify and define patentable new ideas, and can assist with the patent preparation process.

If you would like an unbiased assessment of a new idea, if you would like help refining the idea and identifying patentable inventions, if you would like help with patent preparation, please call or email Clint to see if he can help you.

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