

How to Protect Your Company's Inventions

Reddi Kotha
NOVEMBER 24, 2014



In 1995 and 1996 the scientists of Eli Lilly and Aradigm Corporation met four times to discuss a potential collaboration between the two companies. Lilly had expertise in insulin compounds, and Aradigm had expertise in aerosol-based delivery systems. Nothing materialized.

On January 31, 1997 Aradigm filed a patent application for an aerosol spray that could be used to administer Lilly's Lispro insulin drug. Two years later, shortly after Aradigm received the patent, Lilly sued on the grounds that the scientists who had met with the Aradigm team should be included on the patent as co-inventors.

As it turned out, Lilly was unable to demonstrate that its scientists had collaborated on or provided information critical to the Aradigm invention so the courts ruled against it and confirmed Aradigm's patent. But the story illustrates an important tension in the invention and innovation process that company Chief Innovation Officers need to monitor: inventors and innovators need to source knowledge from outside the firm, but sourcing knowledge from outside brings the risk that you may have to share ownership of the invention that results.

How can CIOs manage this tension? The answer can be found by looking at the experience of university technology transfer offices (TTOs), organizations that regularly confront this very issue. Examples of these organizations include The Wisconsin Alumni Research Foundation (WARF) and Stanford University's Office of Technology Licensing (OTL).

My research, with Phil Kim and Oliver Alexy, into the practices of a pioneering TTO has uncovered insights into IP protection that can help CIOs seeking to manage innovation in an age of open communication. We have developed an interactive tool that highlights which issues are especially salient at which stage of the scientific innovation process.

The first risk a CIO must guard against is inadvertent disclosure. Most companies train their employees on disclosure, but mistakes are bound to happen. The example of Steve Jobs showcasing the iPhone's 'bounce-back' feature in a demonstration in Germany before a filing a patent application comes to mind. What is important is that CIOs have a contingency plan in place, which should at a minimum involve filing a provisional patent application. Because few companies possess an in-house patent agent, CIOs should establish relationships with a few patent agents familiar with their company's technologies. In a pinch, these agents should be able to compress the typical two to three months period of interaction with the inventor and file a patent application in a few days.

Second, CIOs need to design protocols for interactions with those inside and outside the company so that company does not mismanage attributions about inventive steps. There is no mandate that all input providers should get an equal share in the profits from an invention. However, ignoring the contributions of anyone who helped with an inventive step may lead to an invalidation of patent protection down the road.

Third, CIOs must guard against the invention falling into the funder's clutches. Some companies need outside capital, specific materials, or specialized equipment to advance their inventions. While considering these needs, CIOs should manage their collaborative arrangements in such a way that the funders do not appropriate a lion's share of the invention's profits.

Fourth, CIOs need to press researchers to avoid over-reliance on known science. Most companies take the well-travelled path, because the rewards for exploring new scientific domains are highly uncertain. The risk is that an invention that relies too much on known science will not qualify for patent protection. Where known science is in play, the CIO needs to press researchers to focus on novel applications of that science.

At the same time, CIOs need to make sure that in inventions using commercially available components, these should be combined with proprietary software or embedded into integrated systems. Otherwise the invention's patent protection may be withheld on the grounds that the invention lacks originality.

Sixth, CIOs need to ensure that policeability is embedded in the invention, especially when the invention is part of a process producing a product or service. In these situations, it's hard to peer behind the curtains of competitors to see if they are copying your process but there are ways to do it. You can, for example, etch indelible marks on the outputs derived from the new process that

Publication: Harvard Business Review

Date: 24 November 2014

Headline: How to Protect Your Company's Inventions

are hard to copy (rather like the watermark on a banknote) or you can embed the new process in a larger and complex existing system of your own so that it is hard to disentangle. (And if you don't have such a system yourself, then you should consider licensing your process to a company that does have it.)

Finally, CIOs must secure the best territory. That means prioritizing promising markets early on by developing applications most attractive to the most lucrative market, staking their claim through filing a provisional patent application.

We live in an age of increasing connectivity that is changing the process of invention and shrinking the cycle time for innovation. Despite these challenges, CIOs can implement work-around strategies to support their companies' innovations and ensure they fully profit from their new technologies.