



impact^{IP}

KNOWLEDGE BULLETIN

Moore & Van Allen

IP MANAGEMENT STRATEGIES FOR INNOVATIVE COMPANIES

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Invention Capture: The Beginning of Intellectual Property Management

Patentable innovations are often never protected simply because companies never recognize that they are patentable. Recognizing patentable inventions is a major issue for companies both large and small, companies doing business locally as well as companies doing business globally. The global spread of innovation only exacerbates the problem. Even if a company outsourcing innovation to India or Singapore contracts to own that innovation, the opportunity to protect the innovation may nevertheless be lost to competitors because the innovating company doesn't recognize it as being patentable. This problem is exceptionally acute in countries that lack a historically strong patent system. Managers in such countries have typically not been trained to protect patentable inventions. In many cases, by the time the potential value is recognized, it is too late for protection because the invention has been published or offered for sale.

It all starts with conception

The path to the creation of technological value begins with conception of a novel idea. Conception is the formation in the mind of a mental concept of an invention. Conception may result from a novel mental combination of inventive elements, such as engineering a firefly gene into a tobacco plant. Or, conception may be sparked by a surprising discovery, such as the discovery that a drug being investigated for treatment of psoriasis also causes hair growth.

Documentation creates value

Technically speaking, a patentable innovation exists when it is conceived by the inventor; however, in reality this mental picture is almost completely unprotected until it is properly documented. As inventors conceive of and enable inventions, they typically document the inventions in laboratory notebooks, in word-processing files and spreadsheets, and other paper and electronic forms. We refer to this documentation as "primary documentation." At the primary documentation stage, inventions typically have some protection as

trade secrets. But this protection is limited by the quality of the documentation.

Documented inventions are typically reviewed informally, and inventions believed to have value may be formally documented in invention disclosure documents. The invention disclosure document integrates and explains the relevant lab notebook entries, data analysis, and observations. Formal documentation provides an avenue for communicating the details of the invention to patent counsel, who has the task of legally documenting the invention as a patent application that describes the invention with sufficient detail to teach the ordinarily skilled scientist in the relevant field to make and use the invention. Once the patent application is filed, it enters a period referred to in the lexicon of patent law as "patent prosecution." Patent prosecution is essentially a negotiation with the patent office over whether claims will issue in the application, and if so, how broad the claims will be. If successful, the patent prosecution step culminates with the issuance of a patent.

Formal documentation is a bottleneck

A major bottleneck occurs at the invention disclosure documentation step. Researchers commonly fail to alert managers to their innovations because they have doubts about patentability or value. As a result, all but the most obvious innovations remain below the surface, hidden in primary documentation or in the inventors' minds. Even when the innovations do surface, their value can be overlooked by first line supervisors and managers. At trade shows I like to walk around asking companies whether their products are patented. Many are genuinely surprised to learn that their products could be protected with patents. All too often, by the time they arrive at the trade show, the opportunity to patent the inventions has already been lost. When

unrecognized inventions are allowed to escape without a proper evaluation of patentability or potential value, a substantive portion of their value is lost. To avoid this invisible loss of IP, I suggest following this one, simple rule: capture first and ask value and patentability questions later. This means regularly sending a facilitator to capture and document inventions that inventors may not choose to surface on their own.

Invention capture streamlines the process

In the absence of a capture step, the large leap from the inventor's mind or primary documentation to invention disclosure introduces a significant barrier

to the evaluation of the value of an invention. Undisclosed inventions remain virtually invisible to management, and eventual publication often renders them unpatentable.

Invention capture fills this

gap by aggregating inventions from the laboratory notebook and the mind of the inventor in a centralized database where they can be managed. Rather than requiring a detailed invention disclosure document as an initial disclosure, invention capture requires only a brief description of the invention. This description can be obtained by a verbal interview, further reducing the researcher's initial disclosure burden. The process also lowers the per-invention review burden, allowing the IP team to quickly review and evaluate a larger number of inventions.

By lowering the initial documentation bar and centralizing inventions in a database, the capture step ensures that virtually all potentially patentable inventions are initially captured in a form that permits their value to be assessed. While the company or university will almost certainly decide not to pursue some of the inventions, the capture process ensures the opportunity to consider the value of the inventions prior to discarding them, and in this way, the capture step helps to stop the invisible leakage of

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IP. Once captured, management can view all potential inventions together, reviewing them from a technical, legal and business perspective so that the most promising inventions can be selected for investment in the patent process. Each invention can be categorized using parameters, such as invention priority, invention breadth, commercial viability, amount of work needed to develop the invention, willingness of the investigator to do this work, and the like.

As most companies do not have a formal, proactive invention capture process, their invention pipelines are proportional to the ability of inventors and managers to recognize potentially patentable and valuable inventions. Capturing inventions takes them out of the realm of informal, ad hoc screening for value and obviousness, and allows them to undergo expert, formal evaluation. In short, captured inventions can be managed.

An invention database facilitates review

In managing captured inventions, I find it particularly useful to populate a database with the inventions and to assign each invention a set of evaluation parameters. As an example, consider characterizing each invention by three parameters: business priority, invention development phase, and documentation status. To assign business priority, assume that you can obtain patent protection for the invention and rank the invention based on how well it will help you to accomplish your business objectives. Assign an invention development phase based on how well the inventor can describe the basic technical details of how the invention is made and used. For invention documentation status, simply indicate the highest level of documentation, eg, no documentation, primary documentation in a lab notebook, formal documentation in an invention disclosure document, or legal documentation in a patent application.

These parameters can help you sort through and manage inventions by asking the following questions: Of the inventions in the high-priority category, how many are fully explained? Of those fully explained, high-priority inventions, how many are formally or legally documented? The percentage of fully explained inventions that are formally and/or legally documented provides a very basic indicator of the health of your IP protection processes. The lower the percentage, the greater the probability that high-priority inventions may be slipping through the cracks.

The invention capture process also serves as a diagnostic tool for assessing the health of your company's innovation. Now ask another question: What percentage of the inventions are early-stage ideas versus well-developed inventions? Early-stage ideas are your pipeline for future patents. If the number of early-stage ideas is extremely small relative to your well-developed inventions, you may need to work on generating and capturing more early-stage ideas. On the other hand, if you have only a few well-developed inventions and a large number of early-stage ideas, you may need to focus on selecting a set of potentially valuable early-stage ideas and applying your resources to the development of these ideas.

Conclusion

Far too many companies use a reactive approach to managing IP, and while they wait for inventions to surface, unnoticed inventions quietly slip away. Proactive invention management means sending someone into the trenches to actively capture potential inventions. Companies can prevent this loss and can fuel more valuable and defensible IP pipelines by proactively identifying and capturing inventions. Capturing inventions also enables each invention to be evaluated within the context of the whole set and facilitates wiser investment decisions about which inventions to pursue as patents. In this way, limited resources can be strategically directed at the most valuable inventions, creating a stronger, more powerful patent portfolio.

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