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Methods of Rapidly Developing an Intellectual Property Portfolio

Proven Strategies for Generating IP at Unprecedented Speed

By Seth Cronin

Now, more than ever, there is a clear need for innovative businesses in today's competitive markets to rapidly develop an intellectual property (IP) portfolio including patents, trade secrets, and enabled publications. Success in IP contributes to attracting investors and improving investor relations, securing strategic partnerships, and licensing monetization. Failing to protect inventions exposes the business to significant risk from competition and missed opportunity.

The increasingly hasty speed of innovation can be seen nowhere more clearly than in the growth of patent filings in recent years. Although it took 155 years for the United States to issue the first 5 million patents, the next 5 million were granted in the succeeding 27 years. Exponential technology development of this kind spans and connects each sector of the economy, changing behaviors and modifying culture from the foosball tables of Silicon Valley startups to the board rooms of Fortune 500 companies. Now more than ever, the race to the patent office is one that requires speed, strategy, and tenacity. The next 10 million U.S. patents are already being sketched on the literal and figurative whiteboards across the world, poised to protect and elevate that status of proactive, expedient inventors, all while discouraging and excluding reactionary procrastinators.

Top Candidates for Rapid Portfolio Development

While virtually any inventive business may be ready to rapidly develop a strong IP portfolio, there are a few cases which present an exceptional opportunity. Among these are companies who are experiencing rapid bouts of change – change in technology, business models, financing, etc. For this reason, startups, pivoting companies, and companies aiming at new funding rounds or an IPO may especially benefit from a rapid portfolio development strategy.



Startups

Innovative companies just starting up face many challenges that make them ideal candidates for a rapid portfolio development program. Chief among these challenges is the need to prove to investors and customers that the product or service is unique, and that competitors cannot easily replace or undercut their solution. A strategic portfolio of newly minted patents is very compelling evidence in this regard. Savvy investors who encounter such a portfolio while performing due diligence will immediately recognize the value of the technology and have confidence that it is protected.

The value of that IP portfolio is multiplied if it contains IP related to the startup's future direction, business model, and IP that covers each step of the value chain. While many entrepreneurs are gifted at selling a grand vision while pitching to investors, their patents often tell a different story. A typical case usually includes only a few cautious filings around their most fundamental inventions. Rapidly developing a strategic portfolio will prevent startups from falling into this trap.

Pivoting Companies

Established companies pivoting their focus to new markets should keep IP at top of mind, especially considering that any IP they currently have is likely not useful in the pivot. Both customers and stakeholders want to see that the pivoting company is investing in the new opportunity in earnest, not simply engaging in opportunistic window dressing. A strategic IP portfolio provides the new marketplace with proof of the company's innovative capabilities.

New Funding Rounds, IPO

In a broad sense, any business seeking new rounds of funding or considering a public offering needs a strong IP position. Studies have shown (Useche, 2014) that patent behavior impacts the amount of cash collected at IPOs in the U.S. and abroad. Aside from demonstrating technology protection to institutional investors, the nature of patents as a publicly accessible document delivers captivating fodder for public investors to build castles in the sky or verify the firm foundation of the company's solution.

Typical IP Portfolios Are Weak

Before considering how to build a strong IP portfolio, it's important to realize the factors that contribute to making a portfolio 'weak.' There are several reasons why a weak IP portfolio may not offer significant protections from copycats or provide the company with freedom to operate and may expose them to other IP-related risks.



Patents Are Not Strategic

By far, the most common source of weakness in an IP portfolio are patents filed without a targeted strategy. Many inventors make the mistake of filing patent claims only on the final product or design, ignoring valuable IP in the intermediate steps and methods used to create the product. Filing patents "ad hoc" overlooks key inventions on the horizon: the next generation of products, advanced business models, etc. Without a strategy, most companies file patents in their own narrow band of the value chain, discounting the unique ways in which they may interact with suppliers, partners, and customers. Worse yet, when a company doesn't fully understand their IP landscape, that is, the areas in which competitors, partners, and customers are filing, they risk trying to capture IP in some of the most crowded spaces. Filing in a crowded space simply means there is significant prior art with which to contend, increasing the risk of rejection. If a patent is granted in a crowded space, it only does so by having claims with very specific limitations, which brings us to the next source of weakness in an IP portfolio.

Patent Claims Are Too Narrow

The problem with narrow patent claims is the same problem presented by a narrow road blockade: it's easy to navigate around it. By definition, the narrower a patent's claim (or, said another way, the more limitations the claim incorporates), the less likely the assignee will be able to assert that claim, and enforce their patent rights. Colloquially, patent consultants often joke about the "five finger rule" of patent claims: if you can't cover the entire claim with the five fingers of one hand, the claim must be so limited as to be of little value to the assignee. Although, it's important to note that the length of the claim is not the only consideration. Claims can be narrow if they claim a very small range on some critical parameter. Any technology capable of operating outside of that narrow range would not be covered by such a patent.

Patents not backed by Documented Trade Secrets

While many IP managers are aware of trade secrets in theory, a surprising few have taken the time and effort to systematically document supporting trade secrets to a trade secrets registry. Trade secrets allow a business to have commercial advantage over companies who do not know the details of the trade secret. However, it is nearly impossible to prove misappropriation of trade secrets if they are not documented in the first place. To avoid loss of rights, companies need to, at a minimum, document all business critical trade secrets in a registry. Companies with advanced IP strategies may choose to install a formalized trade secret documentation process, where on a routine basis key personnel document any changes to processes or significant learnings that provide commercial advantage.

Methods of Rapid Intellectual Property Portfolio Development

Several methods can be deployed to rapidly develop an IP portfolio. However, the effectiveness of these methods depends largely on the execution. Importantly, developing a large IP portfolio at speed requires a *methodological approach*. An ad hoc filing strategy or building an IP portfolio without a particular method may generate a sizeable portfolio – but it will likely take years, if not decades. Such a timeline is unacceptable for competitive technology spaces, especially for startups, pivoting companies, and companies seeking new rounds of funding.



Methodological Approach

Rapidly developing intellectual property is conceptually simple, yet notoriously difficult to execute. To generate the most value in a short amount of time requires a tested methodology executed by an experienced facilitator. The methodology should be comprehensive enough to be able to succeed in the face of the many pitfalls that can occur while developing an intellectual property portfolio. These pitfalls may include normal barriers to productivity – competing priorities, unrealistic expectations, lack of creative rapport, etc. Chief among these pitfalls may be the "analysis paralysis" that often plagues inventors, where engineers and marketers spend so much time wondering how to create an idea that is novel or an idea that is marketable, that they never get around to documenting any ideas at all.

A sophisticated methodology executed by an experienced facilitator can elegantly navigate through these pitfalls, steering the conversation towards creative avenues and knowing when to move on to the next topic as inventive minds begin to fatigue. There are three basic processes inside an intellectual property development methodology: (1) *invention extraction from current technology*, (2) *creative invention process for new ideas*, and (3) *rapid documentation of inventions*.

Invention Extraction from Current Technology

Extracting existing inventions for documentation is a logical first step on the road to a robust portfolio of patents, trade secrets, and publications. The process begins by identifying key areas in which the business is most inventive. These key areas may be the current product or service, the tools used to

create that product or service, and even specific ways of controlling quality, delivering to customers, and verifying anything received from vendors.

If some component of current technology seems too "obvious" to become part of the intellectual property portfolio, it's still important to dig a level deeper to uncover some novelty that may be hiding beneath the surface. This might include metrics, KPIs, tolerance ranges, unique design features, etc. If the product or service is valuable to customers, then there is almost certainly human ingenuity that created that value.

Creative Invention Process for New Ideas

After effective extraction of inventions from technology currently in use, further development of IP will require a creative invention process that generates novel ideas for future and parallel directions of the technology. An innumerable amount of creativity tools can be used to achieve this, but one of the

simplest is to invent "on top of" existing technology.

Inventing in this manner requires an examination of the prior art – competing products, services, patents, designs, and marketing materials – and asking the question "how can we make this better?" Inventing in this manner may require additional work on the front end to understand the compelling features of prior art as well as the problems that still need to be solved by technology.



These will vary by domain, but some that are extremely common include:

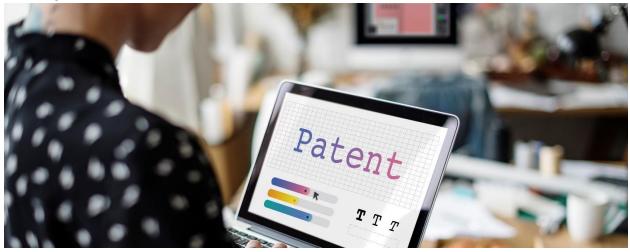
- How to make the technology easier to use
- How to lower costs and increase sales
- How to make the solution more scalable

Rapid Documentation of Inventions

Successful completion of a methodological approach that extracts inventions from current technology and generates new inventions creatively only provides the raw material for intellectual property development. To secure the registry of IP assets generated in the previous steps, each valuable invention idea needs to be formally documented. To use a textbook analogy, extraction and creative invention produces the table of contents; documenting the patents, trade secrets and publications writes the chapters.

Invention documentation is a formal process, requiring many technical conventions that are not common to other types of writing. Typically, high priority patentable inventions are drafted as provisional patent applications which are then filed with the USPTO as soon as possible. Provisional patent applications secure an early priority date for a year, providing additional time for the company to determine value, priority, and feasibility. Importantly, converting a provisional application to a patent application requires that patent claims are submitted which draw subject matter directly from the original

specification. That is to say, no new subject matter can be added to the specification to support the claims. Thus, writing a provisional application comprehensive specification must provide enough subject matter for any claim that the business may wish to patent. For this reason, invention documentation doesn't just rely on cataloging the invention at a high level, but also entails exploring each and every component that makes the invention operable, as well as many additional embodiments that detail alternative ways of achieving the same results.



A similar process can be undertaken for the documentation of trade secrets and enabled publications, with a few key differences. First, timing of trade secrets and enabled publications may not be as crucial – the implications for securing a particular date don't necessarily affect the value of trade secrets and publications in the same way. Second, there are subtle differences in the declaration of best mode of operation. That is, a patent application requires the disclosure of best mode, but alternative modes may be given, and the application does not need to necessarily point to which mode is best. When documenting trade secrets, however, indicating the best mode is critical to effective transference or enforcement of the trade secret. Inversely, declaring best mode in an enabled publication may be counterproductive – you want to create prior art so competitors can't patent the invention, but you don't want to teach them how to easily replicate your technology.

Extracting Value from the Portfolio

Once the tools are in place to rapidly develop an intellectual property portfolio, the next logical question is how to extract value from the IP. Luckily, there are several tried and true techniques for creating business value from IP, as well as paths to monetization.

Communicating Value Through an IP Story

In order to extract value from the IP, a company must be able to adequately communicate the value to interested parties, whether they are investors, acquirers, licensees, the board, etc. The most effective way to articulate the value of the portfolio is by telling the story of the IP. The IP story is not a retelling of the R&D efforts and processes that produced the IP, but rather, how the IP specifically protects the technology – technology that supports the products, which are sold to the market, which fulfill specific

business and/or customer needs. The key goal of the IP story is connecting the business, market, product, and technology directly to the subject IP.



Portfolio Valuation

Another technique for extracting the value from an IP portfolio involves acquiring an independent pro forma valuation of the asset. The valuation can be used to measure the expected return on any monetization path the owner might take. Knowing the value of the portfolio provides an advantage to the asset owner in negotiations, such as acquisitions, fundraising, licensing, etc.

Licensing Program

The most direct way to monetize IP (especially patents) is through a licensing program. To do this, the licensor must locate a potential licensee, communicate the value of the IP (e.g., using an IP story), and negotiate a license with mutual beneficial terms. IP licensing tends to require a lot of experience, finesse, and patience, which is why many companies choose to contract licensing campaigns to consultants.

Press Release

Companies that are publicly traded (or exploring additional financing) may choose to create one or more press releases announcing their newly generated IP. This communicates to the marketplace that the company is innovative and that their technology is protected. Publicly trade companies may see a bump in the stock price and private companies may see new interest from investors.

Asset Based Lending

Finally, IP may be used as collateral for debt instruments such as asset-based lending. Several financial institution will extend business a loan based on the value of their IP. Often, though, the financiers will want to see *evidence of use* for the IP, so that if the loan defaults, they can assert the IP against potential infringers.

Conclusions

Rapidly developing an intellectual property portfolio can bring tremendous value to innovative companies. Some companies, such as startups, pivoting companies, or companies seeking new rounds of funding, may be ideal candidates for a rapid development program. Typical IP portfolios may be weak if they are developed slowly, without a strategy, if the patent claims are too narrow, or if the patents are not backed by documented by trade secrets.

But, in order to develop an effective portfolio at speed, the company must use a methodological approach that includes extracting IP from current technology, inventing creatively in the future direction of the company and its competitors, and rapidly documenting the IP so that value can be extracted as soon as possible. Finally, in order to extract that value, companies need to be able to tell the story of why their IP is valuable. By acquiring a valuation of the portfolio, the company has an advantage in many negotiations, such as acquisitions, fundraising, IP licensing, or asset-based lending. Additionally, IP has a particular cachet unto itself, which can be communicated to the market cheaply using press releases.

The highly competitive landscape of technology demands increased diligence when it comes to protecting intellectual assets. Those who can take advantage of their intellectual capital by rapidly developing an IP portfolio can expect a valuable competitive advantage – while those who neglect to do so may find their work is easily undervalued, or worse, undercut by copycats without recourse. When the patent office grants IP only to those inventors who are *first to file*, there is no time to delay.

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