Rembrandts in the Attic: Creating Revenue Through Patents

I. Introduction

Patent owners who do not actively monetize their patents are missing out on a source of potentially significant revenue. A patent gives its owner the right to exclude others from practicing the claimed inventions, but it does not itself create revenue until it is licensed, sold, or successfully asserted in litigation. Under-utilization of patents is common. More than half of all patents expire prematurely because owners do not pay maintenance fees,[1] and it has been commonly suggested that more than 95% of all patents never recoup the cost of filing.[2]

This article addresses how patent owners can better commercialize their patents, and discusses systems for identifying patents of commercial value, strategies for commercializing patents, and key considerations in execution.

II. Identifying the Best Assets

The first step in a monetization effort is understanding the portfolio and identifying the best assets. Commentators have observed that "a small number of patents are of enormous economic significance"[3] and analogized unlocking the hidden value from under-utilized patents to finding "Rembrandts in the Attic."[4] Not only is it critical, therefore, to identify the best patents, but it is also critical to understand the market for a particular technology.

An overview of the portfolio and potential market.

It is important to analyze fundamental information about the patents, such as subject matter, filing and expiration dates, and patent family data. Input from key business and technical personnel can provide valuable insight into where innovation has taken place, inventorship stories, what the industry values today, and where the industry is headed. The goal is to identify top selling products, products under development, and key industry participants, such as competitors. This data can inform which areas of a portfolio are most likely to hold value.

Market research should include identifying market segments (*e.g.*, mobile phones, PCs, medical devices) that are relevant to different parts of the portfolio, as well as the primary players, their market shares and revenues. This process brings into focus the parts of the portfolio that are most likely to be used commercially. It can also highlight sensitive business issues, such as customers, suppliers, or

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1 Lemley and Shapiro, Probabilistic Patents, 19(2) J. ECON. PERSPECTIVES 75, 80 (2005).

2 Stephen Key, In Today's Market, Do Patents Even Matter?, FORBES.COM, https://www.forbes.com/sites/stephenkey/2017/11/13/in-todays-market-do-patents-even-matter/?sh=665d260756f3; *see also* Bruce Berman, From Ideas to Assets: Investing Wisely in Intellectual Property ("At any given time, over about 95 percent of patents are unlicensed and over about 97 percent are generating no royalties.") (1st ed. 2001).

3 *Lemley* at 81, *supra* fn. 1.

4 Rivette and Kline, Rembrandts in the Attic: Unlocking the Hidden Value of Patents (1st ed. 2000).

research-funders that cannot be part of any enforcement program. In particular, the market research should size the market, model the potentially infringing sales, and evaluate potential royalties. General information about market share and sales volumes is often available from SEC filings or targeted internet searches. More specific sales volume can be obtained from paid sources, such as Gartner or IDC.

Expert consultants are another important resource. The right industry expert will have a wealth of knowledge about specific technology areas. Involving a skilled expert early in the process can pay dividends later when it comes to developing proof of infringement through testing or preparing claim charts to be used in licensing discussions.

Finally, if at the time of the portfolio analysis the patent application process has not yet "closed" in the PTO—and therefore remains "open" to the filing of additional patent applications—consideration should be given to the filing of one or more continuation applications. Continuation applications with revised claims may be filed to improve potential infringement reads, such that they better describe and, therefore, capture infringing products, including those that may have been introduced into the market after the initial claims were drafted. The same is true with respect to validity concerns. Poorly drafted claims that may be prone to validity attacks, including based on prior art grounds as well as non-patentable subject matter, may be revised in continuation applications to overcome such validity concerns.

Patent mining software.

There are also analytical tools that can assist with review, particularly useful with portfolios of significant size consisting of hundreds or thousands of patents and disparate technologies. With advances in text searching and predictive coding, patent mining software can supplement the human process of obtaining an overview of the portfolio, evaluating the market potential, and identifying the parts of the portfolio that should be mined. Existing programs have their limitations but can provide data on a number of different metrics or indicators, including: the number of assignees or inventors, IPC classification, number of citations in other patents, patent family size, claim coverage and evidence of use, patent term remaining, litigation and post-grant proceedings history.

In particular, the number of citations to a patent is a good indicator of its potential value.[5] That a patent has been cited during prosecution of large numbers of other patents suggests that it concerns an important invention in a high value field in which other companies are actively seeking patents. Family size is another important indicator of patent value. Generally, a larger family size indicates that the patent owner concluded that the value of the inventions warranted multiple patent applications with increased coverage. Some of the analytical programs for consideration include PatSnap, CPA Global's INNOGRAPHY, Acclaim IP, IPlytics, Minesoft, and LexisNexis PatentSight.

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[5] *See, e.g.*, Allison and Tiller, The Business Method Patent Myth, 18 BERKELEY TECH. L.J. 987, 1036-39 (2003); Harhoff et al., Citations, Family Size, Opposition and the Value of Patent Rights, 32 RSCH. POL'Y 1343, 1345 (2003); Narechania, An Offensive Weapon? An Empirical Analysis of the "Sword" of State Sovereign Immunity in State-Owned Patents, 110 COLUM. L. REV. 1574, 1595 (2010).

Evaluating and ranking the patents.

It is good practice to evaluate and rank patents with a robust scoring system. Core areas for consideration include infringement, validity, and damages. There are numerous potential criteria within each core area that can be tailored to each portfolio.

Examples of infringement criteria include the type of infringement (*e.g.*, direct or indirect) and ease of proof. In some cases, infringement may be apparent from product specifications. Other times, it may require product teardowns and reverse engineering to determine whether infringement is likely—and even such in-depth investigation may not provide certainty. Examples of validity criteria include the strength of prior art, risk of *inter partes* review or other post-grant review being instituted in the PTO, 35 U.S.C. § 101 concerns, and the sufficiency of the patent specification. Examples of damages criteria include the value of the patented features, the inventorship story, whether the products are practiced by the patent owner, and remaining patent term, among other factors. Once criteria are selected, evaluated, and scored, it is helpful to create a chart similar to the one below:

Review Criteria	Patent 1	Patent 2	Patent 3
Infringement	A	A	B
Claim Scope	broad	broad	narrow
Claim Type	method	device	device
Evidence of Use	A	A	B
Design Arounds	C	C	C
Overall Validity	B	B	A
§§ 102/103 Considerations	B	B	A
§ 101 Considerations	B	A	A
Written Description	B	A	A
Damages	A	A	A
Value of Infringing Feature	B	A	A
Non-Infringing Alternatives	C	C	C
Inventor Story	A	A	A

Other criteria that may be evaluated include:

- Is there a need for reverse engineering to show infringement?
- What are the key claim construction or prosecution history issues?
- Are there joint or divided infringement issues that could undermine effectiveness?
- Are there FRAND issues?
- If the patent owner wants the option to enforce the patent at the International Trade Commission (ITC), is the domestic industry requirement satisfied?

The list of criteria may be tailored to the specific project, as well as to the individuals who are conducting the review. For example, if engineers help with the review, it may be useful to focus their review on technical criteria, such as evidence of use or importance of the technology. Outside counsel, on the other hand, are better situated to evaluate legal issues, such as claim construction or whether the subject matter is patent eligible under section 101.

One common issue that comes up in connection with patent evaluation is how to approach the validity analysis. In some instances, prior art searching is not performed because of some combination of cost, primary prior art being known to the patent holder, or other reasons. Most often, however, some searching is done by outside counsel, either informally by the lawyers analyzing the patents or more formally by a third-party vendor. Which approach to use depends primarily on the budget and the monetization strategy.

The evaluation process is typically iterative and functions like a funnel. Large sets of patents are narrowed to much smaller sets of the most promising candidates. The more-focused set can be subjected to a more detailed review in order to fine tune the scores and identify the best candidates for commercialization. Finally, the best candidates may be evaluated through preparation of claim charts, prior art searches, and/or a review of comparable damage awards.

The process is also iterative in the sense that infringement may need to be re-evaluated from time to time. While a patent may not be practiced today, the industry may later adopt the patented technology. Consequently, it is useful to re-evaluate infringement of the portfolio from time to time. This is particularly true for universities—in contrast to competing companies—which may not keep close tabs on developments in industry. Consider, for example, the recent blockbuster case involving the California Institute of Technology ("Caltech"). In early 2000, Caltech invented a revolutionary type of error correction coding that performed at or near theoretical perfection. Many of its applications, such as Wi-Fi, were nascent at the time. Years later, Apple and Broadcom began incorporating the invention into every Wi-Fi product they made. Approximately two decades after the date of invention, Caltech secured a $1.1 billion verdict against Apple and Broadcom for years of unauthorized use of its patents. Someone evaluating the Caltech patents around the time of invention may not have appreciated the billion-dollar value of those patents; however, their value would be more evident after technologies such as Wi-Fi matured. Thus, re-evaluating a portfolio from time to time can be quite valuable.

III. Monetization Strategies

Once the best assets and the proper market have been identified, a strategy to monetize them must be developed. There are several ways to monetize patents, including licensing, asset sales, and contributing to patent pools. The best strategy depends on a number of factors, including the size and strength of the portfolio, risk tolerance, budget, appetite for litigation, and the industry.

Direct licensing of patents often obtains the highest value. However, it is important to understand that there cannot be a fully successful licensing campaign without a willingness to litigate. A willingness to litigate is required because damage awards may be substantial, and enhanced damages up to 3 times the damage award may be available upon proof that infringement was willful. And, the potential for significant damages may influence a company to take a license. Successful litigation generally sends a message, making other competitors more willing to enter into favorable license terms in the future. Similarly, money is likely being left on the table if there is a pure focus on litigation without also pursuing licensees in parallel. Ultimately, a winning licensing strategy requires identifying the potential licensees and financial opportunities they present, as well as understanding how they have behaved in past licensing negotiations and litigations.

Licensing and enforcement can be implemented by in-house attorneys working with outside counsel. A decision also needs to be made as to which entity will be the patent holder. An operating company that practices the patents naturally may have a better story to tell a jury than a non-practicing entity. However, the operating company may face a risk of counterclaims from potential licensees against the operating company's products.

That said, a combination of licensing and litigation is not always the right approach for every patent owner. It can take years and several million dollars to achieve a large damage award through litigation, and no recovery is guaranteed. For these and other reasons, some companies choose to sell patents, sometimes with a retained interest in future licensing revenues. This approach may create revenue immediately and requires less time and investment. Patents are often sold through brokers, but can also be sold with assistance from outside counsel. If, for example, outside counsel has evaluated the patents, they may have a better sense of the value of the patents and potential purchasers. Outside counsel may also be able to leverage existing client relationships, potentially providing a ready market for a patent sale.

In other instances, companies may decide to contribute their assets to a patent pool. Patent pools are agreements between multiple patent owners to license their patents to one another and to third-parties. The pooled patents are made available to prospective licensees and the licensing fees are apportioned among those who contributed to the pool. In theory, pools decrease transaction costs and litigation expenses—creating efficiencies and cost predictability for innovators (and licensees). Yet the general view is that pools result in lower rates than would be achieved through bilateral negotiations. For this reason, patent owners are less likely to add high-value patents to a pool, though they may contribute patents of lesser value to a pool. It should be noted that, depending on the specific facts, patent pools may raise antitrust concerns, particularly if patents directed to competing technologies are included in the pool.

On occasion, particularly around the time of invention, a patent owner may find that there is not yet a market for the claimed inventions. In these circumstances, it is often in the patent owner's interest to maximize its connections to companies and venture capitalists in order to increase awareness of the technology and increase the likelihood that industry will adopt and ultimately pay to license the patented technology.

IV. Executing the Monetization Strategy

Execution of the strategy may involve identifying the potential licensees, developing an "ask," approaching potential licensees, administering a licensing program, choosing a litigation venue, and managing expenses and funding.

Identifying the target licensees.

Research on target licensees helps focus the next steps. It is often helpful to gather the potential licensees' current or projected revenue, ideally specific to the infringing products. Other considerations also may affect strategy. For example, particularly with competitors, it is important to consider whether the target licensee holds patents that may cover the patent owner's products and weigh risks of potential counter-lawsuits. This may involve evaluating the potential licensee's litigation history, including their propensity for filing counterclaims or lawsuits in response to being sued.

Outside counsel should also consider any known relationships that the licensee may have with other companies that it may leverage to obtain additional patents to assert against the licensor. Similarly, research institutions may need to consider whether a prospective licensee or a key shareholder funds research at the institution and what impact litigation against that licensee may have on the existing relationship.

While an understanding of the potential licensee's revenue is helpful, it is not dispositive. For example, where there are several potential licensees who infringe the same patent, it is sometimes helpful to approach smaller targets first. Smaller targets often have fewer resources to devote to litigation and may be more likely to enter into favorable licenses. Smaller companies also may have fewer patent assets, lowering the risk of counterclaims. Initial licenses with the smaller targets can later be leveraged to help secure deals from larger companies, who are often more likely to take a license to patents that have already been licensed. Other times, it may be preferable to pursue the largest target at the outset to avoid spending litigation resources on small targets with low upside. This is particularly true where it is unlikely that the large target will be influenced by a much smaller target taking a license. The small companies, by contrast, are often likely to fall in line if the large company takes a license. Which strategy to take will depend on a number of factors, including the strength of the patents, the targets' licensing and litigation history, and market dynamics.

Where there is a chain of manufacturing and distribution involving the infringing product, an important strategy decision is which level in the supply chain to target for licensing. There are a number of considerations that may affect the choice, such as the nature of the infringing functionality, the revenue received by the target for sale of the infringing products, potential indemnification obligations among the targets, the location of the targets (which may affect venue for the lawsuit), potential patent exhaustion issues, ease of enforcement, the perceived willingness of the target to negotiate, and its litigation and licensing history. These factors require careful consideration in conjunction with outside counsel to maximize the potential for success and return on investment.

Preparing claim charts.

Once targets have been identified, it is necessary to develop the evidence of use with claim charts that map specific patent claims to the target's products. Preparing claim charts requires detailed review of the patent specification and prosecution history, along with technical analysis of the target products. It is advantageous to involve outside counsel and, as necessary, experts in the field. Information about potentially infringing products may be obtained from a variety of sources, including technical publications, product manuals, websites, product testing, and teardown reports that are available publicly or available for purchase or through a subscription. For example, teardowns may be available through iFixit or Tech Insights.

A compelling presentation of claim charts can make all the difference between a successful licensing campaign and a failed one. Strong claim charts may bring a potential licensee to the table with a mindset that they infringe and are negotiating with an organized and thoughtful licensor. But licensors should keep in mind that recipients of claim charts are likely to assume that the charts represent the "best" patents the licensor has to offer. Thus, licensors should calibrate their efforts accordingly.

Developing an "ask."

Before approaching a target, careful consideration should be given to the "ask." Developing the specific "ask" depends on many factors familiar to IP professionals, and depends on the patent owner's goals.

First, it is important to have a thoughtful rationale and consistent framework for the "ask," potentially including a structured rate sheet. When licensing programs lack an articulable basis for the "ask," target licensees are quick to notice and often view the patent owner with skepticism. Second, licenses should always be viewed through a litigator's lens. Damages theories in litigation are often built around existing licenses. A consistent and rational approach to license terms will help tell a consistent story in future litigation. That is not to say that a licensor should offer the same rate to every potential licensee. Rather, there should be consistent, logical, reasons for distinctions among licensees, such as their size, whether they are a direct competitor, the timing of the agreement (e.g., discounts to early adopters), and the scope of the license.

Another issue to consider is the form of the payment. Targets often prefer lump sum payments, but the lump sum payment can be calculated using per unit rates applied to projected sales volumes to help support a running royalty damages theory in future litigation. Again, it is important that every offer and completed deal be considered through a litigation lens to evaluate its potential impact on royalties or damages that may be obtained from later targets. Often, it is helpful to involve an outside damages expert in developing the "ask." A damages expert can help create a rational economic model for a licensing program and avoid pitfalls in license terms that may undermine the ability to seek the highest possible return in litigation.

Approaching potential licensees.

A successful licensing program requires the implicit threat of litigation if an agreement cannot be reached. Beginning a licensing negotiation without a credible litigation threat is unlikely to yield the best result; more likely, it will be a failure. That said, there is often value to sending notice letters or engaging in licensing negotiations before commencing litigation. If the target practices the patent, a notice letter may be necessary to start the damages clock, and companies are often more likely to take a license from a patent owner who makes sincere overtures. It should be noted that there is a risk that the target may initiate litigation in response to a notice letter in a venue of its choosing. If, however, the patent owner has claim charts ready, filing a lawsuit for the purpose of provoking a negotiation may not be more expensive than sending a letter. A lawsuit may be filed without serving the complaint for a period of time, thereby delaying the required response time for the target licensee. Coupled with outreach for a negotiation, this tactic may secure a preferred litigation venue while setting a natural timeframe in which to conclude initial negotiations—for example, the time within which the licensor must serve the complaint (90 days in federal court).

In every case, the particular approach should be calibrated to the licensor's and licensee's abilities, resources, and history of licensing and litigation, as well as the strength of the portfolio and the merits of the claims. Finally, licensors should bear in mind that all communications with any potential licensee may be the subject of discovery in future litigation and should communicate accordingly.

Selecting the litigation venue.

An important consideration for enforcement is where to file an infringement lawsuit. In the United States, patent cases may be brought in a venue where the defendant has a "regular and established place of business" and has committed acts of infringement. In recent years, the Western District of Texas (Waco Division) has been a hotbed for patent litigation, with Judge Albright alone hearing about a quarter of all U.S. patent cases. In July 2022, however, it was announced that patent cases filed in Waco will no longer be automatically assigned to Judge Albright, and instead be randomly distributed to one of 12 judges. This change has resulted in fewer cases being filed in Waco. We expect that trend to continue, with more plaintiffs carefully reconsidering venue and returning to historically popular venues, such as the District of Delaware, the Central District of California, and the Eastern District of Texas. In cases where a licensor may choose between multiple proper venues, the licensor should consider for each venue the average time to trial, success rates for plaintiffs, median or average jury awards, composition of the jury pool, success rates of motions to transfer or motions to dismiss, experience of the court with patent cases, and the potential for any home court advantage.

It also is often worth considering proceedings before the International Trade Commission (ITC). The advantages of the ITC include its accelerated time to hearing (sometimes, less than 1 year) and potentially far-reaching remedies, including orders that exclude the importation of products into the United States. Proceedings before the ITC may be an effective alternative or supplement to district court litigation, if the prerequisites for filing in the ITC are met. Another potential advantage of the ITC is the ability to sue multiple defendants in a single venue in one proceeding—something that is increasingly more difficult in the district courts.

In Europe, the most popular venue for patent litigation is Germany. A typical infringement case in Germany can be concluded within a year, and a finding of infringement typically results in an injunction. Because infringement proceedings in Germany are bifurcated from and proceed faster than invalidity proceedings, a finding of infringement with an accompanying injunction often results in a quick, efficient, and favorable settlement for the plaintiff. Where defendants have operations in the U.S. and Europe, a successful strategy, where appropriate, is to use German proceedings to increase leverage and force defendants to negotiate a deal favorable to the patent owner. Often, U.S. and German litigations proceed in parallel, but German litigation can prompt quicker resolution of the U.S. district court litigation.

Managing expenses and funding the program.

When it comes to enforcement, a balance must be struck between the cost and risk of litigation and potential returns. One approach that we have used to help determine the balance in an enforcement campaign against multiple targets is to prepare a chart with relevant information, such as the following:

Venue	Company	Total Units	Potential Damages	Settlement Goal	Budget Through Fact Discovery	Budget Through Expert Discovery	Budget Through Trial
C.D. Cal.	Target A	100 million	$20-35 million	$X million	$X million	$X million	$X million
	Target B	50 million	$10-20 million	$X million			
	Target C	35 million	$5-10 million	$X million			
E.D. Tex.	Target D	35 million	$5-10 million	$X million	$X million	$X million	$X million
	Target E	15 million	$2-5 million	$X million			
Delaware	Target F	40 million	$5-10 million	$X million	$X million	$X million	$X million
	Target G	30 million	$4-8 million	$X million			

A chart like this is helpful to organize the potential returns from each target and balance them against the litigation cost as the cases progress. It can also help focus resources so that more time and money goes towards execution of licenses that provide a greater return. For example, a chart like the above may help a client decide whether the potential recovery no longer warrants the litigation spend, suggesting that it makes sense to settle the litigation by offering the licensee more favorable terms.

When it comes to funding a licensing program, many patent owners do not want to bear the entire risk. In such cases, there may be a role for third-party litigation funders or alternative fee structures. Examples of alternative fee arrangements include full contingency, hybrid contingency, or fixed fee with or without success fee bonus incentives. Litigation funders can fill a gap for cases that present more risk than a law firm may be willing to take on. But, litigation funders do not merely fund the David versus Goliath cases. Large companies also use litigation funders to diversify their risk. From the funders' perspective, patent litigation can result in sizable returns on investment and, with the right team (e.g., the right trial lawyers, experts, and patent holders), the likelihood of success can be increased.

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Companies and universities are missing out on a source of potentially significant revenue by failing to exploit the significant value locked up in their patent portfolios. Obtaining patents requires effort, infrastructure, and expense. Maintaining them is also expensive. They should not lay dormant. A properly organized, structured, and logical approach to sifting, evaluating, analyzing, and valuing the patents in a portfolio can lead to successful licensing programs that provide a stream of significant revenue for years. In some cases, patent enforcement efforts can result in million- or billion-dollar damages verdicts. In all cases, however, effort must be taken to unlock this value. If you have any questions about monetizing your patents, please do not hesitate to reach out to any of the following:

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November 28, 2022

To hear John Quinn speak further about this topic, please visit:
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