iam®

Maximising return on investment in a rapidly transforming environment

Robins Kaplan LLP
Christopher K Larus and Miles A Finn

Yearbook
2018

Building IP value in the 21st century

ROBINS KAPLAN LLP

MAXIMIZING RETURN ON INNOVATION IN IP & TECHNOLOGY LICENSING AND ENFORCEMENT

800 553 9910
ROBINSKAPLAN.COM

BISMARCK
BOSTON
LOS ANGELES
MINNEAPOLIS
NAPLES
NEW YORK
SILICON VALLEY
SIOUX FALLS

ROBINS KAPLAN LLP®

REWRITING THE ODDS

Maximising return on investment in a rapidly transforming environment

By **Christopher K Larus** and **Miles A Finn** , Robins Kaplan LLP

The environment for patent licensing and enforcement is rapidly transforming. Because innovative technology itself constantly changes in new and often unpredictable ways, licensing and enforcement of innovative technologies have always been highly dynamic. Increasingly, however, patent owners, capital investors and potential licensees alike must evaluate patent-related risks under new, more complex – and less certain – criteria. Challenges to patent validity under the America Invents Act, changes to legal standards governing patent eligibility and increasingly stringent review of patent damages awards have all combined to substantially alter the risks associated with patent licensing and enforcement.

In this rapidly changing climate, companies seeking to create value from IP assets, as well as those facing IP-related demands, must retool their own practices for evaluating patents and related risks in order to maximise their return on innovation. Best practices in patent licensing and enforcement require not only keeping current with rapidly evolving legal authority and technology trends, but also re-evaluating strategic approaches towards assessing which patent assets provide the most compelling opportunities for licensing and enforcement.

Assessing patents for licensing and enforcement is a highly fact-intensive undertaking that requires experienced qualitative analysis of legal, technical and economic risks. Increasingly, however, patent owners, capital investors and potential licensees alike look for data-driven quantitative inputs to supplement their qualitative analysis and improve their forecasting of risk in a time of rapid climate change.
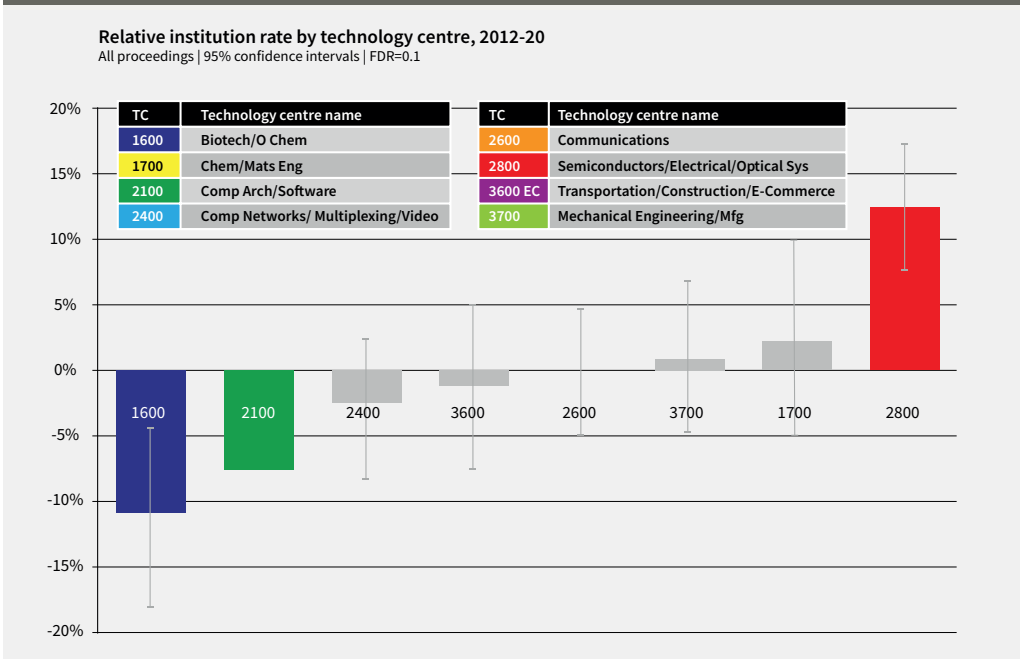
Changing climate for patent licensing and enforcement

The climate for patent licensing and enforcement is highly dynamic and has been substantially affected by a wide range of factors. Beginning with *Bilski v Kappos* in 2010 and culminating in 2014's *Alice Corp Party Ltd v CLS Bank International*, the US Supreme Court's evolving approaches to defining patent-eligible subject matter under Section 101 of the Patent Act fundamentally altered the value of entire patent portfolios in fields such as diagnostics, business methods and software. These cases have also altered the timing of many patent litigation suits. Increasingly, Section 101 challenges are addressed on the pleadings before the alleged infringer has even filed an answer. In 2013 only six such Section 101 motions were brought on the pleadings in courts throughout the United States. By 2016 the number of motions to dismiss based on patent eligibility rose substantially to 92, with slightly more than half either fully or partially successful.

In the same period, the Federal Circuit has continued its trend of increasing scrutiny of patent damages awards, particularly those based on a reasonable royalty. Since the Federal Circuit's 2011 decision in *Uniloc USA, Inc v Microsoft Corp*, courts have rejected calculations of reasonable royalties based on general rules of thumb and have increasingly demanded quantifiable econometric evidence demonstrating the incremental value of a claimed invention. These heightened demands have increased the complexity (and related cost) associated with patent litigation. They have also increased the risks faced by patent owners seeking to enforce their patent rights, particularly those

Figure 1. Impact of technology on *inter partes* review outcomes

Relative institution rate by technology centre, 2012-20
All proceedings | 95% confidence intervals | FDR=0.1

TC	Technology centre name		TC	Technology centre name
1600	Biotech/O Chem		2600	Communications
1700	Chem/Mats Eng		2800	Semiconductors/Electrical/Optical Sys
2100	Comp Arch/Software		3600 EC	Transportation/Construction/E-Commerce
2400	Comp Networks/ Multiplexing/Video		3700	Mechanical Engineering/Mfg

Technology centres in this chart are arrayed from left to right in order of results most favourable to the patent owner. A negative percentage indicates a lower likelihood of institution than average and a positive percentage indicates a greater than average likelihood of institution. Technology centres shown in colour reflect statistically significant results after Benjamini-Hochberg correction using a 0.1 false discovery rate. The indicated 'whisker' bar represents a 95% confidence interval around the data.

whose innovation focuses on improving the performance of multi-feature devices.

Perhaps most significantly for patent licensing and enforcement as a whole is the tremendous growth of *inter partes* review and other post-grant review proceedings under the America Invents Act. Numerous considerations motivate parties to license patents. Fundamentally, however, patents grant legal rights and any assessment of patent risk must consider the ability of the patent to withstand legal challenge. From a patent owner's perspective, *inter partes* reviews and other post-grant proceedings have made the outcome of patent disputes more uncertain and litigation to enforce patent rights more expensive – and risky. Moreover, even where a patent owner has no interest in enforcing its portfolio, potential licensees will likely evaluate the prospect of a successful *inter partes* review challenge when considering alternatives to licensing.

An analysis of Patent Trial and Appeal Board (PTAB) decisions starkly demonstrates the significant impact that *inter partes* reviews have had on the risks associated with patent enforcement. The PTAB instituted an *inter partes* review on at least some of the challenged claims in 70.9% of petitions involving utility patents from 2012 to the end of 2016. Of instituted proceedings involving utility patents that have proceeded to a final written decision before the end of 2016, 70.5% resulted in cancellation of all instituted claims (the percentages of proceedings instituted and surviving final written decision reported here are calculated treating each proceeding separately, regardless of whether it was subsequently joined to another proceeding). These baseline statistics reflect the substantial headwinds faced by patent owners seeking to withstand *inter partes* review challenges.

"Patents in technologies least likely to be instituted often also fare better at final written decision than those from often-instituted technologies"

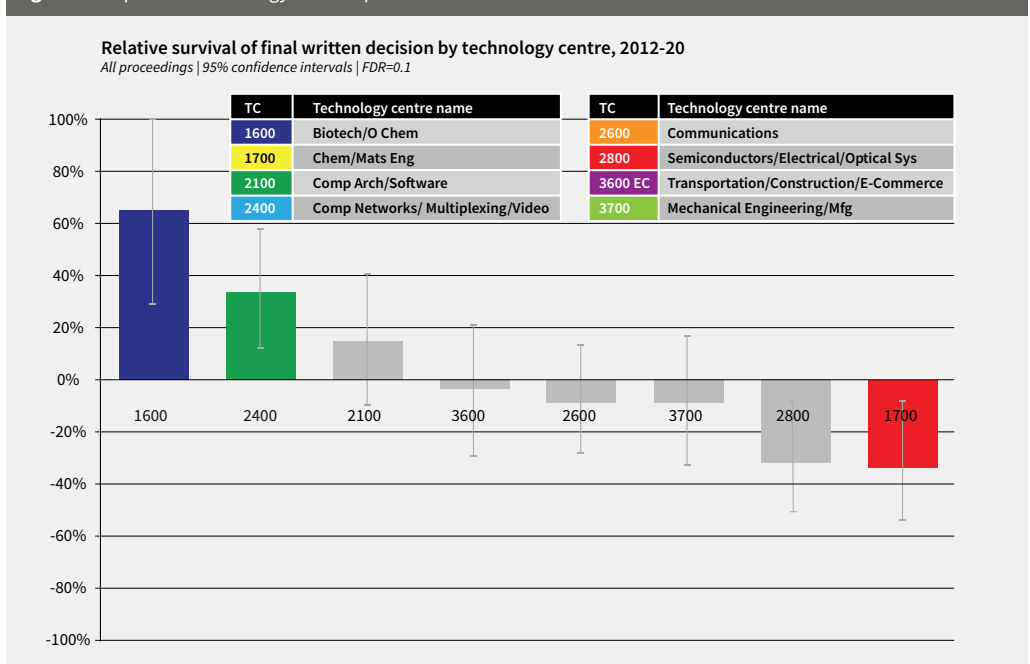## Improved forecasting in a changing climate

While these statistics suggest that patent owners face a daunting gauntlet before the PTAB, digging more deeply into *inter partes* review outcomes can provide a much more nuanced forecast of related risks. For example, an analysis conducted using PINPOINT IP™ patent analytic tools demonstrates statistically significant differences in how various types of technology fare in the *inter partes* review process.

For example, the technology centre to which the US Patent and Trademark Office (USPTO) assigns a given patent has a substantial impact on whether the PTAB will grant a petition to

institute an *inter partes* review proceeding. As the odds chart in Figure 1 demonstrates, institution rates for certain technology centres differ from the average *inter partes* review institution rate in statistically significant ways.

This analysis similarly demonstrates that technology centre assignment also affects the outcomes of instituted *inter partes* review proceedings. As reflected in the chart below, patents in technologies least likely to be instituted often also fare better at final written decision than those from often-instituted technologies. Figure 2 reflects how technology centre assignment affects the combined relative survival rate of patents – combining both the probability that *inter partes* review will not be instituted with the probability

Figure 2. Impact of technology on *inter partes* review outcomes

Relative survival of final written decision by technology centre, 2012-20
All proceedings | 95% confidence intervals | FDR=0.1

TC	Technology centre name		TC	Technology centre name
1600	Biotech/O Chem		2600	Communications
1700	Chem/Mats Eng		2800	Semiconductors/Electrical/Optical Sys
2100	Comp Arch/Software		3600 EC	Transportation/Construction/E-Commerce
2400	Comp Networks/ Multiplexing/Video		3700	Mechanical Engineering/Mfg

that, if instituted, at least one instituted claim will survive the *inter partes* review process.

This more detailed analysis can provide valuable data-driven inputs to those charged with evaluating overall risk in patent licensing and enforcement. Even within general technology centres that do not, as a whole, show statistically significant differences in outcomes, significant differences in outcomes exist at the USPTO's Technology Centre Unit (TCU) or General Art Unit (GAU) level. Thus, in many instances an even deeper analysis comparing relative outcomes at the TCU or GAU level can provide even more specific inputs for assessing risks associated with specific patent portfolios.

Scanning the radar for patents most likely to drive value

Generating substantial returns through patent licensing and enforcement requires more than simply assessing which patents are likely to survive validity challenges. Analysis of potential risks (and returns) ultimately requires a detailed assessment of qualitative legal, technical and economic factors, including:
- the clarity of the patent's claims and description;
- demonstrable cases of infringement based on readily ascertainable information;
- an absence of validity flaws within the patent itself or readily accessible prior art;
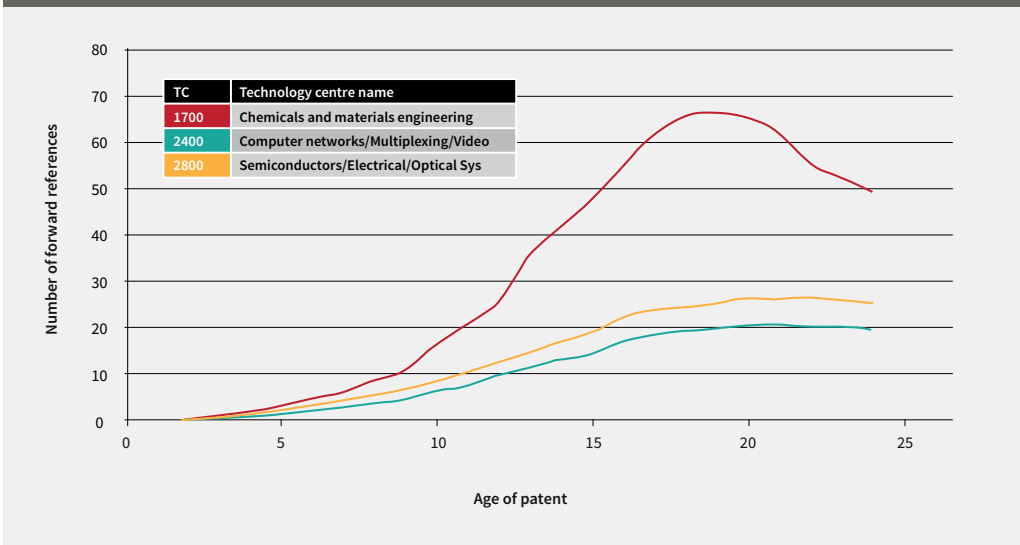
"When carefully tailored, analytic data-driven analyses like those described in this chapter can provide important objective inputs to parties tasked with assessing patents for potential licensing and enforcement"

- the existence of ongoing open prosecution in related applications; and
- whether the patent's claims capture high-value economic activity or product attributes that drive substantial economic value.

This type of detailed qualitative analysis is often both complex and expensive. Accordingly, patent owners seeking to triage large portfolios – or those seeking to put smaller portfolios into a broader objective context – often look to analytics to provide objective, data-driven inputs in the assessment of which patents are worthy of a deeper 'eyes on' review.

Forward citation analysis provides a key

Figure 3. Impact of forward references

TC	Technology centre name
1700	Chemicals and materials engineering
2400	Computer networks/Multiplexing/Video
2800	Semiconductors/Electrical/Optical Sys

Christopher K Larus
Partner
clarus@robinskaplan.com

Chris Larus is a partner and chair of the Minneapolis IP and technology litigation group at Robins Kaplan LLP. For more than 25 years, he has helped his clients to protect their IP rights in a variety of complex patent, trademark, copyright, trade secret and licensing cases. He assists clients in evaluating complex patent portfolios and directing strategies for monetising IP assets through assertion, licensing campaigns and sale.

He has repeatedly been named a Super Lawyer and is listed in *The Best Lawyers in America*, the *IAM Patent 1000*, the *IAM Strategy 300* and *Managing Intellectual Property IP Stars*. He has also been named an Intellectual Property Trailblazer by the *National Law Journal*.

Miles A Finn
Associate
mfinn@robinskaplan.com

Miles Finn is an associate in the IP and technology litigation group and the patent office trials group at Robins Kaplan LLP. He worked in the medical device and software engineering fields for more than 10 years before joining Robins Kaplan as a science adviser and then as an attorney. He helps clients to protect their IP rights in complex patent maters in district courts and at the US Patent and Trademark Office (USPTO), and assists in evaluating complex patent portfolios for monetising IP assets through assertion and licensing campaigns.

Dr Finn was named a New York Rising Star by S*uper Lawyers* in 2016. He has a PhD in physics and is admitted to practise at the USPTO.

---

objective measure that may provide helpful input to forecasting patent value. Forward citation analysis offers a method of estimating the comparative value of a particular patent or portfolio based on the number of times that the patent or portfolio is cited by later patents. A growing body of academic research and court cases has recognised that, in some instances, this type of quantitative analysis may provide reliable inputs relevant to the determination of a reasonable royalty. The actual determination of a reasonable royalty in the context of patent licensing or enforcement will depend heavily on the facts of each case. Nevertheless, forward citation analysis can provide a clear and objective input in the early-stage assessment of patents that are considered for potential licensing or enforcement, regardless of whether the analysis is ultimately relied on as part of a reasonable royalty analysis.

However, as the literature and decisional authority in this area have recognised, raw numbers of forward citations are of limited value, in part because they are affected by age and level of inventive activity in the relevant technology. A comparative assessment of the average number of forward citations for patents within a given technology centre reflects substantial impacts for both age and technology area (see Figure 3).

To control for these broad impacts and focus on the specific patented technology at issue, it is necessary to control for these age and technology effects. Creating a comparative score for the patent at issue that identifies the forward citations for the patent or portfolio as a percentile compared to patents of similar age and technology offers a useful strategy for controlling these impacts. Depending on the specific purposes of the assessment and the nature of the patent or

portfolio at issue, it may also be appropriate to control for the impact of self-citations.

The goal behind this quantitative analysis is not to replace a detailed, qualitative assessment of patent value. Rather, the goal is to provide patent owners, capital investors and potential licensees with an objective, cost-effective way to quickly assess which patents are likely to drive substantial value in patent licensing and enforcement.

Adapting to a changing climate

Patent owners and potential licensees often differ substantially in their assessment of whether the changing climate for patent licensing and enforcement is good or bad for innovation. As outside counsel, we regularly represent innovative companies that find themselves on both sides of this divide. Ultimately, however, most will agree that the rapid pace of change has increased the difficulty of accurately forecasting outcomes and overall risk.

At the same time, the availability of big data analytics allows many business decision makers to rely on objective, data-driven inputs when making significant investment decisions. When carefully tailored, analytic data-driven analyses like those described in this chapter can provide important objective inputs to parties tasked with assessing patents for potential licensing and enforcement. This is especially true for patent owners seeking to identify potentially valuable patents within a portfolio, and potential investors and licensees who seek to put a specific portfolio into a larger comparative context. Analytics alone cannot replace the detailed qualitative analysis of legal, technical and economic factors necessary to fully assess specific licensing or enforcement efforts. However, analytics can provide valuable information to assist business decision makers in forecasting risks in a rapidly changing climate for patent licensing and enforcement. *iam*

ROBINS ⬧ KAPLAN LLP

Robins Kaplan LLP
800 LaSalle Avenue
Suite 2800
Minneapolis MN 55402
United States
Tel   +612 349 8500
Fax   +612 339 4181
Web   www.robinskaplan.com