It wasn’t long ago that protecting intellectual property, or IP (trademarks, trade secrets, and other intangibles afforded legal protection and, in particular, patents), was primarily the purview of technology and pharmaceutical companies. But because of accelerating technological advances, patent activity and the patent wars are expanding into previously untouched sectors. And industries in the path of these accelerating technologies now find themselves grappling with an urgent need for IP fluency.

At the same time, the United States also has experienced a fundamental shift in how IP is managed and monetized. Two landmark pieces of legislation—the America Invents Act (AIA) and the Innovation Act (the former has passed; the latter possibly delayed to the next Congress)—will likely have a dramatic impact on the patent system and companies’ behavior regarding patent management strategies.

The convergence of these two forces—technology acceleration and patent reform—has created an urgent need for business leaders, including CFOs, to reassess their IP strategies. And in this issue of CFO Insights, we will look at how technology has disrupted the patent process, discuss some current legislative responses, and outline the nine dimensions of a robust IP management process.

**Patents interrupted**

The travel industry provides an example of the convergence of technology and IP. From 1999 to 2011, according to the Travel Industry Association of America, online bookings jumped from roughly 15 million per year to nearly 70 million. This flurry of innovation has led to roughly 50% of all travel today being researched and booked online. As with any technological disruption of an industry, there is often an important patents story line—in this case, numerous patent disputes, many initiated by “trolls” (companies or individuals that hold broad patents strictly for the purpose of extracting value through licensing or litigation). Indeed, industry associations, such as the American Society of Travel Agents, have been pleading with legislators to help curtail frivolous infringement suits for some time.

This pattern of technology encroachment followed by heavy IP activity has been repeating itself. According to the World Intellectual Property Organization, total worldwide patent filings eclipsed the 2 million mark for the first time in 2011. WIPO’s 2012 report showed the strongest year-over-year patent filing growth in two decades, with applications reaching 2.4 million and 9.2% growth over the prior year. Moreover, for the first time in history, China surpassed the U.S. in total patent filings.

For companies, though, quality often matters more than quantity. An index produced by the engineering publication IEEE Spectrum, called the Patent Power Scorecard, ranks companies on the quality of their patent portfolio, measuring such dimensions as generality, originality, and growth. These types of indices give some insight into factors beyond just the size of the portfolio and reinforce the importance of patent quality.
Patent quality has another dimension beyond the value of the underlying asset. The understandability, validity, enforceability, and the scope can all impact value of the patent and the potential for IP litigation. According to IPWatchdog.com, there has been a sharp increase in the number of patent infringement cases being initiated over the past few years in the U.S., leading up to the implementation of patent reform (see Figure 1). Much of the increase may be attributable to the trolls and poor patent quality.

**Tenets of U.S. patent reform**
The U.S. has responded with a sweeping overhaul of its legislative framework on patents. Central provisions of the Leahy-Smith America Invents Act went into effect on March 16, 2013, and represents the most significant change to the U.S. patent system since 1952. It also brings the U.S. into alignment with the rest of the world on a “first-inventor-to-file” system instead of a “first-to-invent” system.

In the first-to-invent system, an inventor who demonstrates that he or she is the first to invent would be awarded the patent, regardless of whether or not the individual was the first to file for the patent. In this system, an original inventor could pursue an “interference proceeding” to demonstrate proof that he or she was the first to invent. The new system eliminates interference proceedings as it requires that the inventor be the first to file. So long as the inventor is the first to file, that individual is the rightful owner of that invention.

The AIA includes several key provisions:
- Trolls cannot file infringement suits against dozens of defendants in a single action.
- A third party can take control of a transferred patent (for example, an inventor sells his/her patent to a third party) as it goes through the application process.
- Proceedings in the U.S. Patent Office make it more efficient to challenge issued patents.
- The “micro-entities” filing fee is substantially lower than fees for large entities.

The principal justification for the AIA reforms is that they will promote innovation and technological progress in the U.S. But there is also vocal dissension about whether the reforms will achieve the desired ends.

Meanwhile, there are bills that have recently passed Congress (for example, the House version of the Innovation Act in December 2013) and others currently making their way through the process that are designed to create further reforms in the patent system. These bills target the misuse of patents as a business strategy—buying and selling patents strictly for the purpose of identifying infringement opportunities. For example, provisions of the Innovation Act call for greater transparency on patent ownership by requiring patent plaintiffs to list the name of anyone with a financial interest in the litigation. In addition, the cost of litigation is passed onto the losing plaintiff, making it easier for the winning defendant to recover the cost of a lawsuit.

Given the IP regulatory changes in the AIA and the subsequent trolling provisions that will make it more onerous for a litigator to file a suit, it is not surprising that both patent filings and patent lawsuits spiked in the period before full implementation of the legislation. Since the AIA went into full effect, there have been material changes to the patent management behavior of companies across industries. For instance, there has been a sharp decrease in patent litigation in 2014. According to InsideCounsel, infringement cases in 2014 are down roughly 34% relative to 2013.

**Figure 1. Patent cases commenced, 1980–2012**
IP management: Nine core dimensions

For their part, many companies are turning to new paradigms, such as open and collaborative innovation, in response to the pace of technology and the changing IP landscape. Whether it’s generating and capturing ideas from external sources or innovating with partners, boundaries are becoming more permeable. These new models will likely challenge the “protection” mind-set and could give rise to new thinking and practices on IP ownership, sharing, and licensing.

Beyond these models, however, the new IP landscape in the U.S. points to the need for a coordinated internal approach to innovation and technology management. Moreover, effective IP strategy and management are emerging as imperatives for any company innovating on the rapidly spreading boundaries of technology.

In fact, contrary to its traditional handling, IP is no longer just a legal conversation. It is a core business conversation, where IP strategy and corporate strategy are aligned and mutually reinforcing. A successful IP strategy and management program in this new context and new era has nine core dimensions:

1. **Product pipeline.** Protect R&D and investments to foster the future commercial success of the entity.
2. **IP monetization.** Leverage in/out licensing, access to external innovation, and monetization of non-core IP to generate opportunities for high-margin revenues.
3. **M&A activity.** Use IP assets, IP competitor analysis, and IP valuation as differentiators.
4. **Internal structure.** Communicate clear roles and responsibilities to allow alignment across functions.
5. **Industry reputation.** Use IP to prove image of uniqueness, partnership, and dedication to enforcing IP.
6. **Sensing/Blocking.** Block future white space where substitutes may emerge or competitors are going.
7. **Culture.** Create a culture that empowers and motivates employees to be more creative.
8. **Trading/Cross-licensing.** Embrace opportunities to allow entities to “trade” technologies; enhance negotiating power in disputes.
9. **Protection.** Preserve technology lead and market share by keeping competitors out of the market.

The confluence of AIA and technological acceleration forces companies to be more agile and efficient with their IP programs. A dynamic marketplace and more-aggressive filing timelines in the first-to-file system mean companies must be fast—with their invention disclosures, with prior art discovery, with decisions and patentability, with processes, and with deployment of budgets. Moreover, in the cyber age and with more models of innovation, companies must anticipate and protect against potential misappropriation.

For those with established IP departments and programs, the changes warrant an audit to identify the opportunities for agility and efficiency. For those without established programs, the marketplace dynamics and new laws warrant serious consideration on the threat of technological disruption and the need for a sophisticated IP program that views IP through a multidimensional framework.

**A cross-sector challenge**

The twin currents of patent-law change and accelerating technological transformation and disruption have made it essential for business leaders to master the dimensions of IP management through a contemporary lens. While the experience and perhaps the edge in this case may lie with companies that have been steeped in technology for years, it is increasingly clear that these tides are affecting sectors that will find IP to be a completely new challenge.

For companies without robust IP management programs, there are immediate actions that can be taken. First, the importance of effective IP management must be given visibility, and a good way to do that is to invite or hire an IP leader into the C-suite. Second, the C-suite can immediately begin its educational journey to baseline fluency by inviting subject-matter experts to provide lessons on trends, laws, and best practices. This will likely ignite understanding and a needed sense of urgency. Finally, because IP management is multidimensional, the IP leaders should be given the necessary budget and resources to be effective. This is perhaps where senior leadership will feel the greatest anxiety, as IP management has a substantial sticker price. Budgets will be needed for staff, incentives, education, patenting, litigation, and other activities. But the benefits and payback should not be underestimated.
Read the full article: "Wizards and trolls: Accelerating technologies, patent reform, and the new era of IP" to learn more about how companies can address the growing and critical need for IP fluency.

Endnotes
2 "Internet Travel Booking Statistics," Statistics Brain, May 2014.

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