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THE NEW IP STRATEGY

MAKE LOVE, NOT WAR

By Wendi Backler, Tatu Heikkilä, and Derek Kennedy

FUNDAMENTAL SHIFTS IN THE supply and demand of intellectual property (IP) have dramatically altered the way leading companies are thinking about IP strategy. A decade ago, companies wielded IP primarily as a weapon to exclude rivals from a domain or to generate royalties. But today, the best IP strategy is often to “make love, not war”—to collaborate rather than confront.

Patent owners still assert claims, demand royalties, and seek restraining orders. But today’s playbook is increasingly oriented by the belief that companies stand to benefit the most by working with other companies to ensure that they have the freedom to operate in specific technology domains.

On the supply side, a combination of new legislation and critical court decisions in the US has made it harder to get, keep, and weaponize patents. On the demand side, digital disruption is creating a much broader market for IP. With every company becoming a technology company, patents in domains such as artificial intelligence and

the Internet of Things (IoT), among others, are the new coin of the realm. And with the number of potential infringers exploding, many IP owners are starting to see these companies less as adversaries and more as a potential market.

These shifts are creating new opportunities for companies that are “long” on IP to cooperate with traditional companies that may be “short.” Many tech companies, for example, have a surplus of IP, while industrial goods companies may face a deficit. In an IoT world, they are starting to work together to expand the market for sensor-enabled and location-aware goods and services. Classic, exclusionary IP strategy is not dead, but companies need to master a more sophisticated and nuanced playbook for how to create competitive advantage through IP.

The Waning Influence of Nonpracticing Entities

IP assets are less weaponized than they were just a few years ago. Lawmakers and

judges have made it easier to challenge patents without going to court, and they have become more skeptical about broad business method patents that can be costly to defend. Courts are also less likely to issue permanent injunctions against IP defendants. (See the sidebar “Leveling the Patent Playing Field.”)

Moreover, as economic and technological developments accelerate, the shelf life of patents and many other IP assets shortens. Needing to renew their IP portfolios more frequently, companies are becoming more judicious in choosing where to invest. These developments collectively reduce IP risks to companies—and decrease the attractiveness of strategies with a sole focus on creating value through patent assertion.

Consequently, nonpracticing entities (NPEs), whose business is building an arsenal of patents to assert, have become less successful at demanding rich licensing deals and winning big court verdicts. Just a few years ago, NPEs were shaping the IP secondary market with their aggressive approach of purchase, litigate, and license. Today, although NPEs are still responsible for more than half of all US patent litigation, their force has been blunted. Several high-profile verdicts, such as Smartflash’s

\$533 million judgment against Apple, have been reversed on appeal.

The changing economics of supply and demand have led to a softening of the IP market, driving down the value of publicly traded NPEs and IP transactions in general. The average asking price of US patents fell by nearly half from 2013 through 2017. Intellectual Ventures, the high-profile NPE cofounded by Nathan Myhrvold, has stopped buying patents. WiLAN, another NPE, has broadened its focus to buying IoT businesses and changed its name to Quarterhill. (WiLAN still exists as a subsidiary licensing business.) To be sure, NPEs are not going away; they will continue asserting their patents in the hope of improving returns. But assertion isn’t the only way to create value with IP.

A Changing Landscape of Demand

Paradoxically, as the market value of IP has softened, its business value continues to rise. Intangible assets, of which IP makes up a large part, accounted for 84% of the S&P 500’s market value in 2015, up from 80% in 2005 and just 17% in 1975. This rise reflects how central IP is to business strategy. But in today’s more volatile competitive

LEVELING THE PATENT PLAYING FIELD

Patents are incredibly valuable intangible assets, but in the US they have lost some of their punch through legislative and court actions. First, the US Congress gave companies several new, swift administrative avenues, such as the so-called Inter Partes and Covered Business Method reviews, to challenge the validity of patents. From 2012 through 2017, companies were able to invalidate or weaken more than half of all patents that were challenged through these approaches. In four of five challenges, at least one claim was invalidated.

Second, in *Alice Corporation v. CLS Bank International* (2014), the US Supreme

Court created a test that made it more difficult to secure business method and software patents. As a result, fewer patents have been issued and many legacy patents have been invalidated.

Third, an earlier US Supreme Court decision, *eBay v. MercExchange*, made it more difficult for winning parties to permanently stop a defendant from selling goods and services covered by the patent in question. This decision emboldened companies to risk using technology covered by uncertain patent claims. At worst, an infringer would owe royalties and damages but wouldn’t be foreclosed from the market.

landscape, where industry borders blur, it is nearly impossible to anticipate all the innovation capabilities and IP protection that's needed to guarantee the freedom to operate.

Self-driving vehicles, for example, depend on innovations from companies in the technology, wireless, industrial goods, automotive, and even consumer goods industries. No single company owns all the IP necessary to build these vehicles. More broadly, as traditional companies go digital (and digital startups enter their businesses), they will need to secure rights to IP in fields far away from their historical core. Banks and other financial institutions, for example, are under threat from startups in several fields, including fintech and data security. Oil and gas companies are being targeted by startups active in data analytics. And in many fast-growing segments, the leading patent holders are tech companies, not incumbents. (See Exhibit 1.)

Many traditional companies have carefully constructed IP portfolios, but even the best of these will not provide the freedom to operate in new domains. Traditional companies increasingly need to rely on technologies, services, and IP from outside their core industry. When competing with their long-standing rivals, companies could often avoid or minimize the threat of litigation because all the major players had patent

portfolios that effectively cancelled one another out: if competitor A sued competitor B in a domain of relative strength for A, for example, B could countersue in a different field where the tables were turned. But in unfamiliar areas, traditional companies are unlikely to own the patents needed to get to a stalemate.

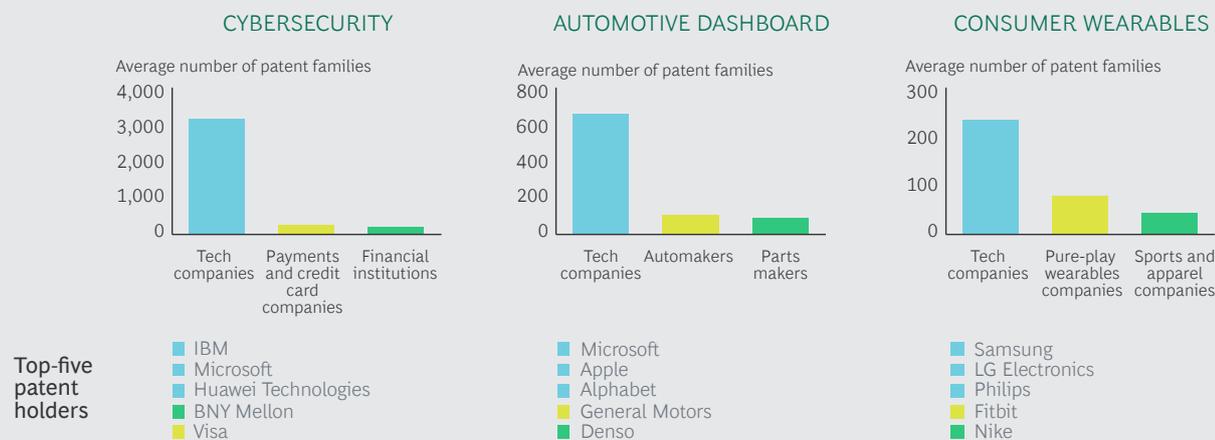
Five New Ways to Play the IP Game

This new environment is mutually beneficial for both the longs and the shorts. Leading companies are pioneering novel approaches to IP strategy that serve the interests of the longs, which are seeking to unlock value from their IP assets, and the shorts, which are seeking to mitigate their IP risk as they explore essential new frontiers. (See Exhibit 2.)

Sphere of Protection: Indemnification on Steroids. Patent owners are starting to offer their customers more comprehensive forms of protection than that provided by a traditional license, which is a limited right to practice a specific innovation. A license, however, does not provide the freedom to operate in a domain because it may be encumbered by other patents.

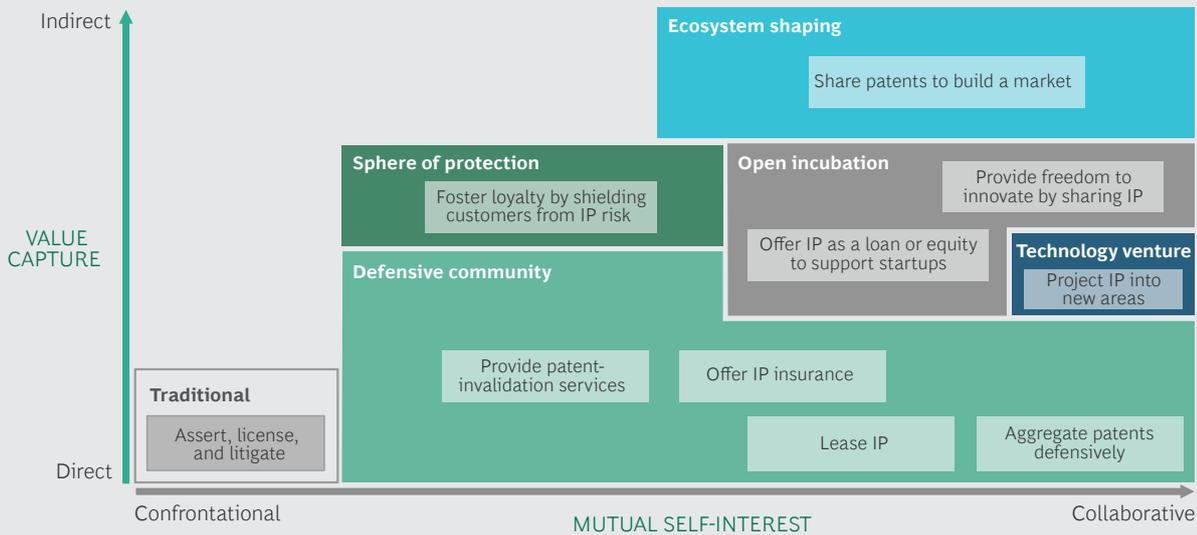
Some companies, such as Microsoft and Red Hat, have been able to attract cloud customers by offering broader coverage

EXHIBIT 1 | Tech Companies Have the IP Advantage in Many Segments



Sources: Derwent Innovation; Intellectual Asset Management; BCG analysis.

EXHIBIT 2 | The IP Strategy Playbook Has Dramatically Expanded



Source: BCG analysis.

than a plain-vanilla license. NPEs are increasingly asserting patents against cloud providers and their customers. From 2010 through 2017, cloud-based IP litigation rose by 47% annually, and NPEs’ acquisition of cloud-related patents rose by 27%.

Microsoft’s Azure IP Advantage program is an example of this type of coverage. It indemnifies commercial cloud customers for their use of Azure services and provides access to a portfolio of 10,000 Microsoft patents to use defensively if their services running on the Azure cloud face IP challenges. Finally, the program insulates customers from the possibility that Microsoft might transfer a patent to an NPE—a practice it currently shuns. These forms of protection have given confidence to developers that they have the freedom to innovate on Azure.

By forming a sphere of protection, the longs create a strong selling point that will attract new customers as well as strengthen customer relationships and margins. By embracing the sphere of protection, the shorts mitigate risk and secure the freedom to operate and experiment in new domains.

Defensive Communities: A Better Patent Pool. The best offense is often a strong defense. Several entities are taking the initiative by buying or otherwise defanging

potentially troublesome patents before they get in the hands of NPEs. These approaches are modern-day variations of a patent pool in which owners agree to cross license their technologies in order to commercialize an invention.

This new form of protection varies by community. RPX and AST, for example, buy patents on behalf of their members, defusing many more threats than members would be able to do on their own. These companies also provide ancillary services, such as market intelligence. LOT Network offers a sort of mutual nonaggression pact. When a company joins LOT Network, the company provides a license to the network’s members that protects them from litigation if the company’s patents are acquired by an NPE.

The benefits of defensive communities are similar to those of the spheres of protection. Companies receive protection from IP litigation at a fraction of the cost of constructing an IP portfolio on their own.

Technology Ventures: Noncore Licensing. Companies often find themselves with patents that pertain to businesses or markets in which they are no longer participating or that have unexpected applications in other sectors. Rather than

warehouse or abandon them, companies are seeking to license these patents to non-competitors or work with them to build new technology businesses. Tech Ventures, a BCG subsidiary, for example, helps companies identify technologies and pockets of innovation that have commercial potential outside of their field. This approach unlocks hidden value for the longs and creates opportunities for the shorts. Tech Ventures has identified uses for optical communications patents in fields as diverse as health care, oil drilling, and aerospace. It uncovered these potential new uses of the technology by applying a semantic algorithm and statistical tools to the claims and citation history.

Ecosystem Shaping: Playing the Long Game. Although a patent is a right to exclude, the better strategy sometimes is to invite others to use an invention. Companies seeking to create, expand, or accelerate a market are making their IP available royalty free, even to competitors. By opening their IP war chest, these companies are betting that they have more to gain through the sale of products and services than through licensing and litigation.

Famously, Tesla opened its electric-car patents to competitors as a way to shape and accelerate the growth of the industry. The nascent electric-car industry is subject to network effects. As more charging stations and related infrastructure are put in place, more electric cars are sold—driving manufacturing costs down. Lower costs will increase sales and encourage infrastructure investment: a virtuous cycle. Following Tesla's lead, Toyota and Daewoo also opened some of their IP in an effort to promote their alternative energy technologies. This strategy foregoes short-term licensing revenue in favor of long-term health for the longs and provides safe market entry for the shorts.

Open Incubation: Sharing IP Fuels Innovation. Longs have begun exploring models in which they partner with shorts—typically smaller companies or startups—to drive innovation. In a typical arrangement, the longs retain full ownership in their original IP, and sometimes, but not always, share with their partner ownership of new IP that emerges from the collaboration. In one version of this new model, we see longs contributing underused patents to third-party organizations that “invest” this IP in new ventures—at little or no upfront cost to the small company or startup. And some longs are pursuing open incubation directly. Microsoft recently published its “Shared Innovation Principles,” which will guide the company's collaborations with its customers. These principles specify that Microsoft will retain control of its preexisting IP, that customers will retain control of their preexisting IP, and that customers will also own the IP that is developed jointly on the Microsoft platform. Microsoft also commits to allowing its customers to port a new service or product to a non-Microsoft platform.

The Airbnb Approach to Patents

The confrontational approach to IP strategy is not dead, but in a boundary-blurring world, fresh options have emerged, and, at their core, these five alternatives suggest that exclusivity is no longer an absolute requirement for managing IP. Increasingly, companies are trading the high cost of acquiring and maintaining their own IP portfolio for less costly, nonexclusive access to patents. As the shift from ownership to access takes hold, companies should reevaluate their IP strategies accordingly.

About the Authors

Wendi Backler is an associate director in the Toronto office of The Boston Consulting Group. She specializes in intellectual property, open innovation, and innovation networks. She is also a cofounder of BCG Tech Ventures, which helps companies commercialize their IP portfolios. You may contact her by email at backler.wendi@bcg.com.

Tatu Heikkilä is a partner and managing director in the firm's Helsinki office. He is a core member of the Technology, Media & Telecommunications practice and the Nordic leader of the Marketing, Sales & Pricing practice. You may contact him by email at heikkila.tatu@bcg.com.

Derek Kennedy is a senior partner and managing director in BCG's San Francisco office. He is the global leader of the firm's work in the technology industry. You may contact him by email at kennedy.derek@bcg.com.

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