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Intellectual Property

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To my colleagues at Stanford Law School
and Morrison & Foerster LLP

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Introduction

Intellectual property. The term itself suggests the nature of the challenge. How can a product of the mind—an invention, a song, a brand, a business secret—become the subject of precise, bounded property rights? No idea is entirely original; every innovative business borrows, sometimes extensively, from its competitors and others. How can lawmakers draw a line that crisply states, This is yours and that is mine?

Companies spend millions, sometimes billions, of dollars researching and developing new products, knowing that they will have to write off the investment if a court should hold that the invention trespasses on another company's patent. Book publishers, film studios, and record labels invest in creating and marketing copyrighted works that inevitably build on themes, incidents, and other elements taken from earlier works. Which of these elements are in the public domain, free for the taking, and which are not? Many of the best-known and most valuable brand names—Burger King, McDonald's—are little more than descriptive words and common names. How can a company appropriate such names to its own exclusive use? When a departing employee takes a company's trade secrets and know-how with him, what part of this information belongs to the company and what part, derived from his own skill and training, belongs to him? Marking off the boundaries of intellectual assets is like drawing lines in water.

Elusive as intellectual property boundaries are, the business value they secure is enormous. Commentators cite breathtaking figures to indicate the scale of intellectual assets in the modern economy: "76 percent of the Fortune 100's total market capitalization is represented by intangible assets, such as patents, copyrights, and trademarks," and "an estimated 80 percent of the value of the Standard & Poor's 500 is made up of intangible assets of all kinds." By one recent estimate, the nation's copyright and patent industries alone contributed almost 20 percent of private industry's share of U.S. gross domestic product and were responsible for close to 40 percent of all private industry growth.

Impressive as these numbers are, the profits generated by intellectual assets can be even more striking. In 1986 media entrepreneur Ted Turner paid $1.6 billion for the MGM film studio, quickly selling off the studio's tangible assets—production and distribution operations, film laboratory, and real estate—in a deal that left him with $1.2 billion invested in the copyrights to MGM's film library, including such classics as *Casablanca*, *Gone With the Wind,* and *The Wizard of Oz.* In 2004, when MGM was again on the block, analysts estimated that its James Bond franchise alone was worth $1 billion, encompassing not only DVD revenues from the twenty Bond films already in the MGM library, but also the revenues to be earned from new releases, for which they estimated profits at no less than $125 million for each film, not counting product placements. (In one Bond film, *Die Another Day,* automaker Ford arranged for the placement of tie-in advertising for three of its brands—Aston Martin, Thunderbird, and Jaguar—and cameo appearances for another three. Estimates of the placement deal's value ranged in the tens of millions.) In 1999, Salton Inc. paid George Foreman and his partners $137.5 million to use the former heavyweight champion's name and image to market the Lean Mean Grilling Machine and other kitchen products, a payday for which the boxer did not have to land—or suffer—a single blow.

Intellectual property, this most profitable of all business assets, is also the least stable. One reason is that, far more than any other business asset, patents, copyrights, trademarks, and trade secrets are constructed of legal rules. Equally important is that, far more than other legal doctrines, the rules that define intellectual property are the

subject of constant change. Intellectual property's boundary lines are inherently uncertain and can shift from one judicial decision to the next. When in 2000 a federal court declared the patent on Prozac invalid, the value of Eli Lilly shares plummeted more than 30 percent. In 2002 a judge ruled that rival suppliers had not infringed Gemstar's patents on an on-screen program guide, and the company's stock dropped 39 percent in value. The stock of Visx, a leading vision-correction laser company, fell 41 percent after a similar ruling. Smart business practice requires an understanding of the forces that produce uncertainty and change in intellectual property law, and if not always the insight to predict their outcomes, then at least the ability to plan for them.

Like so many companies before and since, Eastman Kodak learned about uncertainty and change in intellectual property law the hard way. On April 20, 1976, after seven years and hundreds of millions of dollars spent on research and development, Kodak introduced its first instant camera and film. One complication was that the Polaroid Corporation had beat it to market by twenty-nine years; another was that Polaroid had surrounded its inventions with hundreds of U.S. and foreign patents. Six days following Kodak's product announcement, Polaroid filed a patent infringement lawsuit against the company in federal district court in Boston, Massachusetts, Polaroid's home turf. On September 13, 1985, after years of pretrial discovery and a two-and-a-half-month trial, District Judge Rya Zobel handed down her decision: Kodak had infringed seven Polaroid patents. A month later, Judge Zobel ordered an injunction against Kodak, which, subject to appeal, would effectively take the company out of the instant photography business.

Even putting aside the $600 million that Kodak had already lost in instant photography the usual way—costs exceeding revenues—the loss from the Polaroid lawsuit was staggering: $494 million, according to the company, to shut down plants, dispose of inventory, and compensate the millions of customers whose instant cameras were now worthless because the company could not produce film to be used in them; tens of millions of dollars in lawyers' fees; and, after a separate damages trial, a total judgment of $873 million—which continues to stand as the largest patent award ever made.

A favorite sport of stock analysts is to handicap intellectual property infringement cases, and the differences among their estimates can offer a graphic index of the range of legal risk. The first predictions of Polaroid's ultimate recovery in *Polaroid v. Kodak*, made shortly after Judge Zobel handed down her liability decision, ranged from $30 million to $100 million. The estimates grew over the next three years, ranging from $300 million to $1 billion. After the damages trial, but before announcement of the damage award, the upper end of the range rose to $2 billion. When Judge A. David Mazzone, who oversaw the damages trial, finally awarded Polaroid $873 million, Polaroid stock dropped 23 percent and Kodak's rose over 10 percent, to adjust for the analysts' earlier wrong estimates. And these estimates failed to account for the largest legal shift of all: between the time Kodak introduced its products and Judge Zobel announced her decision, the legal standard for determining patentability had markedly changed in favor of patent owners like Polaroid.

Why are intellectual property rules so much more mercurial than other property rules? (If real property rules were similarly unstable, the Empire State Building, fully rented one day, would be open to squatters the next.) The answer stems from the fact that intellectual assets—inventions, entertainment, brand names, collections of data, trade secrets—are information and, as such, are inexhaustible; unlike the Empire State Building, information can be used by unlimited numbers of people without impairing the ability of still other unlimited numbers to use it too. Lawmakers recognize that without property rights to protect innovations from freeloading competitors, businesses will hesitate to invest in innovation—which is why legislatures enact intellectual property laws. But lawmakers also understand that to impose intellectual property rights necessarily means turning away prospective users who are unable or unwilling to pay the price for access to the protected information, even though their use of the information will deprive no one else of it—which is why they impose limitations on intellectual property rights that would be unimaginable in the case of other forms of property rights. Schools cannot photocopy instructional materials for their students without first paying for copy machines,

paper, and ink. But copyright law's fair use doctrine regularly gives teachers a free ticket to copy the very content of the material itself.

Judges, legislators, and lawyers commonly speak of "balance" in intellectual property law, and this is certainly a desirable goal. But balance—at least if it implies stability—is an illusion. No law that seeks to encourage both the production *and* use of information can possibly achieve more than a momentary equilibrium. Because support for investment incentives inevitably undermines support for free access—this is the paradox of property rights in information, and the subject of chapter 1—all balances are temporary; the slightest current of public or political sentiment can shift the balance by extending property rights one day and restricting them the next.

Intellectual assets have long lives—patents last for twenty years from the date of application, copyrights can last ninety-five years or longer, and trademarks and trade secrets are potentially perpetual—and there is no more important intellectual property management objective than to anticipate an intellectual asset's legal future over its lifetime. Kodak's intellectual property lawyers could not have anticipated the specific legal changes that tipped the judicial scales in Polaroid's favor over the long course of that lawsuit. However, history shows that the forces producing change in intellectual property law are themselves predictable and can offer a rough index of the directions that change will take.

Each form of intellectual property expands and shrinks at its own pace. American patent law has experienced sharp peaks and valleys of protection over its history; as will be seen in chapter 2, the generous patent standards applied in *Polaroid v. Kodak* were part of an ascent toward a peak that lasted through the 1990s and into the new century, but is now poised for a judicial and legislative backlash. Copyright's ups and downs have been less dramatic, and, as shown in chapter 3, lawmakers concerned that a too-robust copyright will stifle the growth of new technologies have been carving new inroads into the law. Trademark law is for the first time flowering into a full-fledged intellectual property right, an evolution traced in chapter 4, but in time we can expect that it too will encounter a cyclical reversal. Trade secret law,

viewed as a property right in the nineteenth century, became a more limited doctrine in the twentieth century, but, as will be seen in chapter 5, is today on a trajectory that will lead to expansive property rights once again, albeit in dramatically different forms, such as protection for databases. The impact of the Internet, the subject of chapter 6, has been to exaggerate these current trends in patent, copyright, trademark, and trade secret laws, and the impact of globalization, the subject of chapter 7, has been to disperse these trends rapidly through foreign markets, including some, particularly in Asia, that at one time rejected intellectual property altogether.

In this book I will examine the most important forms of intellectual property, using legal case studies to illustrate routes to success and failure in managing legal risk and extracting value from these assets. I will also shine a light on the underlying forces of change that make intellectual property so challenging as a business asset. As you will see, the risks and rewards of intellectual assets are no less manageable than those of other business activities. However, the management tools differ, and the experience of the most successful intellectual asset companies reveals not only a healthy respect for the margins and mishaps that these assets can produce, but also the need to merge legal and business perspectives in managing them. The central lesson of this book is that every business decision involving intellectual assets is ultimately a legal decision, and that every legal decision is at bottom a business decision. If intellectual property is economically too important to be left to lawyers, it is also too legally charged to be left to managers.

Intellectual property, though it may seem to some to be an esoteric or even exotic topic, is in fact an intensely practical matter, and I have in this book drawn on forty years' experience not only teaching and writing in the field, but also practicing in it. My faculty position at Stanford Law School has given me the time to write and maintain two treatises and two standard texts on domestic and international intellectual property law, as well as articles exploring the law's encounters with new technologies. My association as counsel with one of the country's

largest law firms has given me the opportunity to provide intellectual property advice to clients ranging from two-person start-ups to Fortune 500 companies (including one company that made the jump from the first category to the second). These parallel careers have also enabled me to observe intellectual property lawmaking close-up, working on law reform with congressional committees and international governmental organizations. I hope that the insights drawn from these experiences will help to guide companies large and small as they navigate the tricky passages where the law and business of intellectual assets converge.

1

The Intellectual Property Paradox

The name Polaroid is synonymous with instant photography, but without patents Polaroid could not have dominated the market as it did for the entire history of this once popular medium. In the course of the *Polaroid v. Kodak* trial, in which Polaroid sued Kodak for infringing twelve patents on its instant photography films and cameras, one Polaroid official described the company's founder, chairman, and chief inventor, Edwin Land, as "fierce" about patents. At the company's annual meeting, the day after it filed its lawsuit, Land told shareholders, "This is our very soul we're all involved in. This is our whole life. . . . The only thing that is keeping us alive is our brilliance. The only way to protect our brilliance is patents."

Kodak understood this fervor because it too was a company founded on patents. More than sixty years before Edwin Land applied for his first patent, George Eastman applied in the United States and Europe for patents on his own pathbreaking photographic inventions, ultimately erecting an intellectual property fortress as impregnable in its domain as was Polaroid's. By 1976, when Kodak announced its entry into the instant photography market, the Rochester company controlled an estimated 85 percent of the conventional, amateur film market in the United States and 53 percent of the camera market.

The views of innovators like Land and Eastman rarely change: more

patents are preferable to fewer, and the broader the reach of these patents, the better. But views of lawmakers do change. Patent standards and remedies can shift even over the span of a single trial, particularly when, as in the case of *Polaroid v. Kodak*, the trial stretches over fifteen years. Pretrial discovery alone consumed close to five years, with Polaroid requiring Kodak to turn over 268,000 pages of documents; in turn, Polaroid produced 40,000 documents. Kodak took 298 days of depositions and Polaroid 164. Kodak's deposition of Dr. Land lasted twelve days; the depositions of other Polaroid inventors and project leaders took longer. The trial before Judge Zobel went on for two and a half months, with Dr. Land testifying for a total of thirteen days—six days of direct examination by Polaroid's lawyers and seven days of cross-examination by Kodak's. By Polaroid's estimate—Kodak did not dispute the figure—the company's attorneys' fees for the litigation added up to $48 million.

The Risks—and Rewards—of Legal Uncertainty and Change

One legal standard that changed over the course of the Polaroid trial was the statutory requirement that, in order for the U.S. Patent and Trademark Office to grant a patent, the applicant must show not only that the invention was new at the time he invented it, but also that it was "nonobvious"—not readily apparent—to workers reasonably skilled in the art. Even if the applicant convinces a patent examiner of the invention's novelty and nonobviousness, and the PTO issues a patent, another company, if sued by the patent owner, can ask the court to invalidate the patent on the ground that the PTO erred in its findings of novelty or nonobviousness. The company can also ask the court to find that, even if the patent is valid, its own product did not infringe it.

In venturing into Polaroid's minefield, Kodak clearly understood that the legal boundaries of a patent are far less defined than the boundaries of a parcel of real property, and the company used due diligence in determining which, if any, of Polaroid's issued patents would hold up on judicial review. (Judge Mazzone expressly declined to find that Kodak's infringement was willful—a finding that could have led to

a trebling of the $873 million damage award.) As Kodak's research and development effort got under way, the company retained a prominent intellectual property lawyer, Francis T. Carr, to compare Kodak's planned products and processes to the subject matter encompassed by Polaroid's patents and to opine on whether any of the Kodak inventions infringed on valid Polaroid patents. Carr, a partner in the New York intellectual property boutique Kenyon & Kenyon, later estimated that he and his legal team looked at 200 to 250 known Polaroid patents (he used the term "known" because "it was not clear at any point in time that all Polaroid patents had been located"). He then delivered written opinions to his client that sixty-seven key Polaroid patents were invalid or, if valid, would not be infringed by Kodak's products and processes.

When Kodak relied on Frank Carr's legal opinion that Polaroid's relevant patents were either invalid or not infringed, it was betting that a judge would agree—and, if not a federal district judge like Rya Zobel, then the federal appellate judges who review district court patent decisions. Neither bet was high-risk, for few patents are bulletproof. Despite surviving examination in the PTO, an issued patent, once it becomes the subject of litigation, has an almost fifty-fifty chance of being ruled invalid by a trial court. Indeed, Judge Zobel found three of Polaroid's patents to be invalid, one of them without even the necessity of a trial. And, despite the rigors of trial, appellate courts have in some years overturned as many as half of district court patent decisions, although the average is lower.

If, as seems likely, Frank Carr had been meticulous in parsing the Polaroid patents to ensure that Kodak infringed none that was valid, what went wrong? One problem was simply that no legal rule—and no lawyer's opinion—could have drawn a bright boundary line indicating which elements of the inventions belonged to Polaroid under its patents and which elements were free for others, including Kodak, to manufacture. The second problem, characteristic of all intellectual property laws, is that they change. Legal opinions are no better than the legal rules they are based on, and in this case the legal standard for invention—crucial to determining the validity and scope of Polaroid's patents—had changed between the time Frank Carr wrote his opinions and when Judge Zobel rendered her decision.

At the time Carr wrote his opinions for Kodak, jurisdiction over patent appeals in the United States was in the several regional courts of appeals, and although the standards of invention applied by these courts differed, all more or less followed the rigorous standard for patentability adopted by the U.S. Supreme Court, requiring that, to receive a patent, a combination of old elements must demonstrate a "synergistic effect," the whole being demonstrably greater than its constituent parts. What Carr did not anticipate was that in 1982 Congress would consolidate jurisdiction over patent appeals from the district courts in a single new court, the Court of Appeals for the Federal Circuit, nor that in 1983 this new Court of Appeals would effectively reject the Supreme Court standard (not a common thing for a lower court to do!). Consequently, by the time District Judge Zobel rendered her decision in 1985, it was the new, more relaxed standard that adherence to Federal Circuit authority required her to apply.

The change in the standard of patentability was only one of the unhappy surprises that awaited Kodak in its litigation with Polaroid. At the time Kodak started developing its instant photography products, the company expected that even if it lost at trial the court would under then-prevailing practice automatically postpone an injunction until the appeal could be decided. Kodak could then continue in business—uninterrupted if the appeal was decided in its favor, and possibly subject to a negotiated license with Polaroid if it was not. But in 1983 the Court of Appeals for the Federal Circuit changed the rule on injunctive relief—a development that Polaroid lawyer Herbert Schwartz, from another leading intellectual property firm, Fish & Neave, called "a monumental change in the law"—and subsequently Judge Zobel refused to postpone Polaroid's injunction pending Kodak's appeal. The decision exposed Kodak for the first time to a real risk that its instant photography business would be closed down. As a law student at the University of Pennsylvania, Schwartz had published an article on patent injunctions in the student-run law journal, and so "had very well in mind" the Federal Circuit's change in the rule on stays. "I thought we ought to take a run at trying to persuade the court not to stay the injunction. When we got to the part, which was conventional, to stay the injunction, and the judge asked for briefs on it, Kodak was stunned to hear it."