

VALUATING INTELLECTUAL PROPERTY DEALING WITH DOTCOMS

ADVANCED HIGH TECH LITIGATION

Strategies for Suing and Defending High Tech Companies

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I. Introduction.

A. The Chasm Between the Virtual World and the Real World.

The principles for valuing intellectual property that were developed over the course of two hundred years make no sense in cyberspace. The litigation between Amazon.com and Barnesandnoble.com over the "One Click" patent demonstrate this chasm between the real world and cyberspace. Even the New York Times is writing about this chasm. James Gleick, Patently Absurd, The New York Times Magazine, March 12, 2000. "One Click" is a registered mark owned by Amazon.com.

Three factors have created this chasm:

1. The United States Patent Office started granting business process patents for Internet software applications.
2. Wall Street assigns astronomical values to e-commerce companies such as Amazon.com, holder of the “*One Click*” patent. Amazon.com has lost money each year since it was formed and yet had a market capitalization on March 13, 2000 of \$22.619 billion.
3. There appear to be no significant assets but intellectual property behind pure e-commerce companies.

Later, we will look at Amazon.com as an illustration of this chasm.

B. Business Process Patents.

A business process patent gives the patent holder a legal monopoly to use that business process. For example, United States Patent 5,995,947 issued November 30, 1999 to IMX Mortgage Exchange in San Ramon, California. The patent is named Interactive Mortgage and Loan Information and Real-Time Trading System. This patent basically claims a legal monopoly for online loan applications, including matching lenders, brokers and borrowers. What is a business process patent worth?

C. American Inventors Protection Act of 1999.

The American Inventors Protection Act of 1999 provides limited protection against certain claims for the infringement of business process patents.

The American Inventors Protection Act of 1999, enacted into law on November 29, 1999, added the following First Inventor Defense:

“It shall be a defense to an action for infringement under section 271 of this title with respect to any subject matter that would otherwise infringe one or more claims for a *method* in the patent being asserted against a person, if such person had, acting in good faith, actually reduced the subject matter to practice at least 1 year before the *effective filing date* of such patent, and commercially used the subject matter before the *effective filing date* of such patent.”

35 U.S.C. § 273 (b)(1). The term *method* means a method of doing or conducting business. *Id.* at § 273 (a)(3). The *effective filing date* of a patent is the earlier of the actual filing date of the application for the patent or the filing date of any earlier United States, foreign, or international application to which the subject matter at issue is entitled under the Patent Statutes. *Id.* at § 273 (a)(4). What is the impact of the First Inventor Defense on the value of a business process patent?

II. What Constitutes Intellectual Property?

A. The Four Quadrants of Information.

Knowledge can be divided into the four following sets: (a) general knowledge that is available to the public (“General Knowledge”); (b) general knowledge that each individual obtains from education and experience (“Experience”); (c) privately owned and legally protected knowledge that has been documented and registered with the government (patented, registered copyright, registered mark) (“Registered”) and (d) privately owned knowledge that the owner must protect (trade secret) (“Confidential”). Generally, in the United States, everyone is welcome to use General Knowledge, only owners may use Registered knowledge, the individual owner may

use Experience and, until the owner loses control over access to Confidential knowledge, only the owner may use Confidential information.

B. Realizing Value for Intellectual Property.

When we refer to the valuation of intellectual property, generally we mean the value of Registered and Confidential information. General Knowledge and Experience do not differentiate a technology business from its competitors in the same manner as Registered and Confidential information.

C. Valuing Registered Intellectual Property.

Registered intellectual property is the easiest to define and value. Using the capital budgeting approach to an intellectual property portfolio, the two questions to answer are (i) cash required to best exploit the Registered portfolio and (ii) the annual cash flow the Registered portfolio is expected to generate. Relevant factors include costs to work around the technology, costs and desirability of substitutes to the technology, life span of the technology, price or cost savings contribution of the technology and market rates for licensing substitutes to the technology.

D. Valuing Confidential Intellectual Property.

Confidential intellectual property is the most difficult to define and value. Confidential intellectual property largely resides in the work force. If the work force that uses Confidential information leaves, the value of the Confidential information is greatly reduced. Sharing, as opposed to losing, Confidential information is a greater risk than evaporation. The real friction comes from determining whether an individual's knowledge is their own Experience or their employer's Confidential information. When a technology worker leaves, the employer believes that Confidential information is lost while the employee feels that he/she only has Experience.

III. Real World: Calculating a Reasonable Royalty for Licensing Technology as Proxy for Valuing Technology.

A. Royalty as Valuation Indicia.

Valuing technology requires integrating technical innovation and business, gathering facts and making assumptions. Determining a reasonable royalty on technology integrates technical innovation and business, creating a good proxy for valuing technology. All technology has costs and benefits. A licensee and licensor allocate these costs and benefits to determine a reasonable royalty. A reasonable royalty applied to a good faith sales forecast allows a present value calculation of the technology.

B. Sales Base.

The point of departure in valuing a technology is defining the sales base to which a royalty applies. The sales base is the source of value derived from use of the technology.

C. Appropriate Royalty Rate.

The definition of the sales base allows determination of the appropriate royalty rate. How does the technology generate value for its owner? Factors influencing the royalty rate calculation include (i) industry licensing practices, (ii) measure of the technology's cost and benefit and (iii) each party's relative bargaining strength. In the case of a general valuation, the "willing buyer, willing seller, neither under duress" is the appropriate standard of relative bargaining strength.

D. Key Factors.

What is the expected long-term operating profit attributable to the technology? What is the expected long-term excess earnings attributable to the technology as distinguished from operating without the technology? What is the cost to design around the technology?

All of this works well in the real world.

IV. Georgia-Pacific Analysis to Value Patents.

Frequently used in litigation over patents, the *Georgia Pacific* analysis employs a number of factors considered relevant to determining a reasonable royalty for a patent. Georgia-Pacific Corp. v. U.S. Plywood-Champion Papers Inc., 446 F. 2d 295 (2nd Cir. 1971), *cert. denied*. A description of these factors follows:

1. Royalties received by the licensor to show an established royalty.
2. Royalties paid by the licensee for comparable patents.
3. Scope of the license such as whether exclusive, limited in product line or service or geographically limited.
4. Licensor's policy of whether to license patents.
5. Relationship of licensor and licensee - competitors? joint venturers?
6. Whether the patented products assist in selling other products.
7. Remaining term of patent and license.
8. Whether, and to what degree, the patented product is a commercial success.
9. Advantages of patented product over products using prior methods.
10. Commercial nature and benefits of the patented product to end-users.
11. Extent to which an infringer has made use of the invention.
12. Portion of the product selling price attributable to the invention.
13. Portion of infringer's profit attributable to the invention.
14. Testimony of qualified experts.
15. The royalty that a reasonable, willing and prudent licensor and licensee, neither under duress, would agree upon.

All of these factors can be used in the real world.

V. The Different Universe of Dotcoms; the Example of Amazon.com; Snapshot on March 13, 2000.

1. Taking Care of Shareholders. The ultimate responsibility of a CEO is to earn a return for the shareholders through stock appreciation or a return of capital. Amazon.com, by that measure, is a well run company.
2. Share price. \$66
3. Market capitalization. \$22.619 billion
4. Employees. 2,100
5. Annual Sales in 1999. \$1.639 billion
6. Annual Income in 1999. \$720 million loss. Amazon.com has lost money every year since formation.

VI. What is Amazon.com's Intellectual Property?

1. Book value of fixed assets. \$30 million
2. Net present value of cash flow. Amazon.com has negative cash flow and financial losses.
3. Shareholder's equity. Amazon.com has no retained earnings with shareholder's equity consisting of remaining paid-in capital.
4. Debt. After floating convertible debt in the first quarter of 2000, Amazon.com will owe creditors about \$2.409 billion.
5. Subtraction. There is no positive cash flow to value. There are minuscule fixed assets to value. By process of elimination, the stock market values Amazon.com's goodwill, workforce, investments in other dotcoms and intellectual property at \$22.590 billion. This \$22 billion is for contracts with other dotcoms, domain names, trademarks, patents (Amazon.com's webpage lists six patents), copyrights, lease of an automated warehouse, investments in other dotcoms and goodwill.
6. The big question. If Amazon.com defaults on that \$2.409 billion in debt, what will the creditors receive?
7. Where each dollar goes. During 1998, Amazon.com spent \$1.19 for each dollar of sales revenue as follows:

\$1.00 sales revenue
 (\$.78) cost of sales
 (\$.22) marketing
 (\$.08) research and development
 (\$.03) general and administrative
 (\$.08) amortization of goodwill

VII. What if the Dotcoms Died?

A dotcom is a business model with a hope of becoming a profitable business. Most dotcoms are capitalized with equity. As a general rule, as long as the stock price goes up, selling more stock will be acceptable to the existing shareholders. Where does a dotcom with a negative cash flow raise cash if the stock price drops? What is the borrowing base? What remains if a dotcom fails?

1. Fixed assets. Used furniture, computers and routers will not bring much.
2. Workforce. The dotcom cannot miss payroll or the workforce leaves. Will the workforce leave anyway if their stock options have no value? Who puts in the cash to keep payroll funded? Secured by what?
3. Cash flow. Assume that all research and development and amortization of goodwill stops. Using the Amazon.com model, each dollar of sales revenue will still cost \$1.03. This is because simply the cost of sales and marketing costs equal each dollar of sales revenue.
4. Trade secrets. Are the trade secrets documented and available in escrow? Did the trade secrets leave with the workforce?
5. Software. Is the software source code documented and available in escrow?
6. Trademarks. Were the trademarks registered?
7. Patents. Did the patents issue?
8. Domain names. Who owns the domain names?
9. Databases. Who owns the databases?

VIII. The Problem With Valuing Trade Secrets.

A. Macro Versus Micro Perspectives.

Cutting costs is critical for an industry. Costs are cut through knowledge, doing things smarter and better. Sharing knowledge is good for an industry. That is the macro perspective. Sharing your knowledge with a competitor is bad. That is the micro perspective. We live in the micro world.

B. Natural Experiments.

During the Cold War, the East and West Germanies provided a natural experiment. One nation, one people, one culture started from the same baseline in 1945. The differences between the two Germanies in 1985 were caused by whether the nation developed under either a communist dictatorship or a representative government with capitalism.

A similar natural experiment occurred between the MIT-centered Route 128 technological corridor and the Stanford-centered Silicon Valley. Gilson, Ronald J., The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete, 74N.Y.U.L. Rev. 575 (1999). Route 128 is a commercial technology region, launched by the Cold War, with computer industry and computer service industry companies packed together. Silicon Valley is a chip and software technology center, with chip and software industry, and chip and software industry service companies, packed together in emulation of Route 128. Route 128 received a considerable head-start on Silicon Valley. Today, Silicon Valley has overtaken and greatly exceeds Route 128 in many economic metrics. Professor Gilson attributes this performance difference to the type of legal protection given trade secrets. California's refusal to enforce covenants not-to-compete has made knowledge available industry-wide. This has led to a regional economic boom. Massachusetts' enforcement of covenants not to compete has blocked the sharing of trade secrets. This has slowed economic growth. This natural experiment is given as support for the macro perspective that sharing knowledge is good for an industry.

C. Is the Route 128/Silicon Valley Natural Experiment Valid?

Differences in enforcing covenants not to compete may not be the causative factor between the regions. There may be other forces at work that have differentiated Route 128 and Silicon Valley. Regardless, the macro versus micro conflict remains. Why will individual enterprises innovate if competitors are able to obtain their innovations? On the other hand, how can you deny someone the right to earn a living?

D. Relevancy to Texas.

Everything that a person needs to launch a technology company is readily available in Texas. On a macro level, the physical concentration in Texas of General Knowledge, Experience and Confidential knowledge creates a fertile environment for innovation, start-ups and the sharing of technical knowledge. On a micro level this concentration creates the opportunity for less innovative companies to catch up with innovative companies. A less innovative company that can hire a team away from an innovative company can, in theory, eliminate competitive advantage. The team arrives with General Knowledge, Experience and Confidential information. Assume that the hiring company pursues a course of action that is distinct from the prior employing company. If the team does no more than prevent the hiring company from pursuing paths that look attractive but hit a dead-end, based upon their experiences at their prior employer, is that use of Experience or Confidential information?

IX. What is a Trade Secret?

A. Definition.

The Uniform Trade Secret Act defines "Trade Secret" as "information, including a formula, pattern, compilation, program, device, method, technique or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." Section 1(4).

B. Practical Rule of Thumb.

Information that ceases to be secret is no longer a trade secret. The owner must treat the trade secret like a secret. The owner of a trade secret must use reasonable precautions to prevent the secret's disclosure. Third parties are not required to treat information as secret unless the owner treats the information as secret. Treating information as secret includes limiting access to those with a need to know; requiring employees and contractors to sign confidentiality, invention disclosure and assignment agreements; requiring all viewers to be subject to confidentiality covenants; installing physical security systems; installing electronic information security systems and designing products to protect trade secrets when those products are examined.

C. What Constitutes Misappropriation of a Trade Secret?

A misappropriated trade secret is one that is wrongfully acquired or that is misused after proper acquisition. Wrongfully acquired includes acquisition through theft, bribery, misrepresentation, breach of confidentiality duties, inducing the breach of confidentiality duties or espionage. Uniform Trade Secrets Act I(1). Misuse of a trade secret means a knowing unauthorized use. The user must know that a trade secret is involved and that the owner has not authorized the use. The use of "Confidential and Proprietary Property of XXXX" legends and notices on trade secret documentation will reduce the possibility that unauthorized use is without knowledge.

X. Inevitable Disclosure: An Illustration of the Problems in Valuing Trade Secrets.

A. PepsiCo.

The struggle between protecting employee mobility and protecting trade secrets took on new dimensions in 1995 with PepsiCo, Inc. v. Redmond, 54 F.3d 1262 (7th Cir. 1995). In PepsiCo the court enjoined an executive of PepsiCo from going to work for a competing beverage division of Quaker Oats on the grounds that the executive would inevitably use PepsiCo trade secrets in discharging his responsibilities at Quaker Oats. This doctrine is called "inevitable disclosure".

B. Elements of Inevitable Disclosure.

The elements of inevitable disclosure are (i) the existence of trade secrets, (ii) to which the employee had access, (iii) the trade secrets will be useful in the employee's discharge of his new duties at a competitor and (iv) the employee will inevitably use the former employer's trade secrets for the competitor's benefit.

C. Fact Specific.

Executive swore that he would not use PepsiCo's Confidential information and instead would use only his Experience. Quaker Oats relied upon the Quaker Oats policy against using the Confidential information of a third party. Quaker Oats also relied upon timing. Executive would be implementing pre-existing Quaker Oats Confidential plans developed prior to Executive's arrival.

The PepsiCo court accepted PepsiCo's arguments. The court appears to have used the two following elements of analysis in reaching this decision: (i) Executive will be unable to compartmentalize Experience and Confidential information and will inevitably use PepsiCo's Confidential information to benefit a competitor; and (ii) due to a lie told PepsiCo by Executive about whether he had accepted an offer with Quaker Oats, Executive would not honor a promise to not use PepsiCo's Confidential information.

D. Different Jurisdictions, Different Results.

Registered intellectual property is governed by federal law. Trade secrets are intellectual property governed by state law. That means that there are fifty plus different systems of trade secret law at work today in the United States.

There is the Uniform Trade Secrets Act, a codification of trade secret law that has been adopted by over forty of the states. However, not all states have enacted the Uniform Trade Secrets Act. Also, there are fifty plus independent judicial systems deciding trade secret cases. The decisions of these independent judicial systems are not binding precedent in any other jurisdiction. As shown by PepsiCo, the facts of trade secret cases drive the results. This also leads to inconsistent results when trade secret law is applied.

How do you value trade secrets?

XI. Is Knowledge Experience or Confidential?

A. Perspectives.

When a knowledgeable employee, a professional, moves from one company to a competitor there are very predictable positions that will be asserted.

1. The former employer will assert the position that the professional is selling the former employer's Confidential knowledge to the new employer;

2. The new employer will assert the position that the professional is being hired for Experience and will work exclusively with the new employer's Confidential knowledge;
3. The professional will assert the position that the professional will only use Experience and General Knowledge and will never use the former employer's Confidential knowledge; and
4. The professional will note that much of what former employer considers Confidential is actually General Knowledge and Experience.

B. Acid Test: Does Each Party's Action Match its Verbal Position?

Trade secret dispute resolution will turn on facts. Does a party's action match its verbal position?

1. Does the former employer protect the trade secrets?
2. Does how long the former employer asks that the new employer not hire the professional match how long the trade secrets will remain Confidential?
3. Does the former employer offer to compensate the professional for the length of the period the former employer asks that the new employer not hire the professional?
4. Did the professional create or have access to the trade secrets?
5. Did the professional download or otherwise copy the trade secrets immediately prior to departure?
6. Is the former employer willing for the professional to be employed by the new employer in a capacity unrelated to the trade secrets?
7. Is the new employer willing to allow reliable inspectors access to the professional's work?
8. Is the professional willing to allow reliable inspectors access to the professional's work?
9. Is the compensation package offered to the professional by the new employer in-line with industry standards or so large as to indicate the purchase of trade secrets?
10. Has the new employer offered jobs to a discrete group of individuals at the former employer that worked with the professional?
11. Is the former employer willing to identify the specific points of concern?
12. Are the professional and new employer willing to institute safeguards to address the former employer's specific points of concern?
13. Did the former employer lay-off professional or did professional resign?
14. Are there documented incidents involving a lack of integrity on the part of the professional, the new employer or the former employer?
15. What statements have been made by the professional, the new employer and the former employer about the dispute?

C. Value.

In a dotcom, where most of the value is in intangibles, how are trade secrets valued under these circumstances? How can a creditor realize value from trade secrets? How can a creditor cleanly separate trade secrets, property rights, from the workforce if the owning dotcom is melting like an iceberg in tropical waters?

XII. Conclusion.

The world is changing fast. At least today, E-commerce and cyberspace require a different model for valuing intellectual property than does the real world.

For a good general discussion of the valuation of intellectual property, see the footnotes in Charles R. McManis, Intellectual Property and International Mergers and Acquisitions, 66 U. Cin. L. Rev. 1283 (1998).

For a system to rank patent portfolios see Robert Buderer, Companies Squeeze the Patent Pipeline, Technology Review 82, (MIT; March/April 2000).