

# Color Me Confused, Confounded

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*Editor's Note: This paper is based upon a talk by the author at the 2002 Seoul International Intellectual Property Conference of LES-Korea/AIPPI-Korea (co-sponsored by LESI) under the title "Valuations and Technology Transfer" on October 13, 2002.*

**W**ith the growing importance of Intellectual Property Rights (IPRs), evidenced by damage awards for infringement and annual royalty income reaching 10-digit figures, "leveraging" and "monetizing" IPRs have become buzzwords. A veritable cottage industry of web-based third-party service providers has sprung up in short order to "extract value" from IPRs. The big five accounting firms, and Arthur Andersen, in particular, seem to have initiated and spearheaded the "new wave" or, I would say, "new craze." To name but a few: Aurigin, Ascent Financial, Delphion, Epache, INTX, ipCapital Group, IP.com, IPNetwork.com, IP Vision, IP Value Management, Invention Machine, Licent Capital, M-Cann, PatEX, PI-xTRRU, ThinkFire, Value Extraction, Yet2.com, etc.

Some of these outfits have generated a lot of hype and hoopla about producing "patents on demand" in "patent factories" and valuing a patent "in a matter of minutes."

The example of TRRU (Technology Risk/Reward Unit) Metrics, which "adapts the same Nobel Prize winning equation (The Black-Scholes Formula) used in determining the value of call options," because "a patent is a 'call option' on technology," is especially interesting and revealing. It is touted as providing "almost instant, market

-driven calculation" of IP value. Ernst & Young is full of praise: "It used to take us weeks to provide a valuation estimate to a client. Now we can determine the value of a patent in *several minutes* and have the security of knowing that its result is based on actual market data." According to a stunned eyewitness of a demonstration, a light-flashing computer spewed out a figure in a few minutes, indeed—and a figure in the millions, of course. And their software program is available for a "mere" \$60,000. Is this snake-oil salesmanship or what?!

Speakers at the Winter Meeting of the Association of Corporate Patent Counsel (ACPC) in Phoenix, Arizona in January 2002 had this to say: These service providers are much too expensive for what they deliver, they haven't done much for companies using them, they are "solutions in search of needs," Aurigin already went belly-up and filed under Chapter 11 (which makes "Rembrandts in the Attic," published by Aurigin, of dubious relevance) and there are "other dead bodies" around. One speaker was "sheepish" (his term) about having had a role in Arthur Andersen's "Edison in the Boardroom."

Can patents, as advertising of these outfits would want one to believe, be produced "on demand" in "patent factories" and can their value be determined "in a matter of minutes?" Is the underlying premise correct that a patent is a patent and by definition is a "Rembrandt in the Attic?" Does the patentee have the upper hand, by virtue of having a patent, and hence can he/she charge what the traffic will bear? Is licensing, selling or donating patents the best

way to extract value? Is licensing-out the "only game in town?" The answers to these questions are a resounding no for numerous reasons, which appear to be overlooked and ignored in this IP valuation and monetization hype and hoopla. We need to remind ourselves therefore of the fundamentals of patent and licensing law and practice.

## I

First of all, there are many, what I call, attrition factors for patents, affecting their incidence, validity and value, such as:

- Creativity and inventiveness reaching the patentability level (in terms of novelty and unobviousness) are very rare qualities. Intellectual property cannot be treated as a "given." (Professor Jay Dratler, Jr., University of Akron).
- Many R&D scientists and engineers, like analytical chemists, work in areas less conducive to inventing.
- Patentable inventions are often overlooked because R&D staffs don't "think patents," being too preoccupied pursuing their R&D projects and believing that their developments or improvements are not patentable.
- Corporations and institutions are quite selective in choosing inventions for patent coverage if they are not within the corporate franchise and R&D plans and budgets, if

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trade secret maintenance or defensive publications are preferred, and if a shortage of patent practitioners and high PTO fees militate against extensive filings.

- Patentability is doubtful due to close prior art, statutory bars or other patent-defeating grounds.

- Inventorship and ownership problems raise their ugly heads.

- Patent applications are often narrowed in scope, finally rejected by the PTO, or lost on appeals.

- Getting a patent and getting an enforceable patent are two different things—a patent is a slender reed, threatened with three dozens of invalidity and enforceability grounds.

- “Only about 5% of a large patent portfolio” have commercial value (Emmett Murtha, President, Fairfield Resources; former IBM Director of Business Development; and LES (USA & Canada) President), i.e. the rest are mere paper patents, and hence hardly licensable for big money.

- The average effective economic life of a patent is “only about five years” (Emmett Murtha).

- Enforcing patents is a daunting and frustrating as well as an expensive and time-consuming task.

- For many patents, no or only limited coverage is obtained in foreign countries.

- Focusing on patents as measures of innovation or vehicles for technology transfer ignores the fact that they are often valueless or inadequate for commercializing viable products, absent associated, collateral know-how protected by trade secrets.

## II

In corporate and institutional settings, and because patents do not “grow on trees,” a more effective and reliable, promising and proven patent management practice to “harvest inventions” involves the following elements and steps:

- A simple, easy Invention Disclosure system (policy, procedure and forms),

- Close rapport with inventors—“hand holding,”

- A MBW practice (Management by Wandering Around - Harvard Business Review),

- Periodic trips to R&D sites,

- Presentations on IPR topics to R&D personnel to create IP awareness,

- Distribution of IP bulletins to R&D personnel,

- Regular perusal of R&D’s technical reports,

- Attendance at R&D meetings,

- Written procedures for cooperation between R&D and IP Departments,

- Placement of patent liaison people at R&D sites,

- A reasonable employment/invention agreement with all R & D personnel,

- Review of invention disclosures in patent committee meetings, and

- An inventor award or incentive system.

## III

As regards to the value of patents, there are many factors or considerations that play an important role in any valuation. Vastly different values may reside in broad, basic or pioneering patents versus narrow improvement or picture patents, that it is easy to design around. For competitive reasons, patent applications are filed very early after conception and reduction to practice and hence have little experimental support and cover technology in a mere embryonic stage. That is entirely different from a patent that covers a successful commercial product or process. This also goes for paper patents. Moreover, there is a significant difference in value between a patent that is strong and enforceable and a patent that is weak and of questionable enforceability. And of course values may vary widely from industry to industry. Also, in most patent transactions a package of patents (issued patents, pending applications, rights to apply for patents) is the merchandise, but the purchase price or royalty

is not cumulative. Furthermore, a valid patent that has been upheld in court as valid, will significantly gain in value. And rare or non-existent in the advertisements and literature of the valuation and monetization service providers, are references to the indispensable exercise of due diligence in IP transactions which may take weeks or months and without which one may “buy a lawsuit” rather than an asset.

## IV

In a licensing context—and licensing out is what the value extraction and monetization mania is all about—the valuation or royalty-setting fundamentals can likewise not be ignored.

Contrary to common assumptions and misconceptions, it is not true that licensors can charge what the traffic will bear, licensors can recoup their R&D expenses, the cost of the development of a technology is a big factor, there are royalty standards within each industry to go by, etc. Indeed, there is a limit to what a licensor can charge and most often it is the licensee’s economics, not the licensor’s, that controls the royalty determination (Gordon Smith, President of AUS Consultants, author of several IP valuation books, “Father of IP Valuation”). And isn’t there a 25/75% rule? Isn’t licensee entitled to the lion’s share because of the greater risk he/she carries, especially with less-than-fully developed technology? And above all, when it comes to royalties less is more and greed never pays off. In my corporate experience, several agreements turned sour because the royalties were too high, the profitability was not there and the deals could not be sustained in the end. On several other occasions, agreements had to be renegotiated for lower royalties for the same reasons. In other words, they were not viable win/win license agreements to begin with.

Actually, the cost to licensor of the development of the technology is not a factor at all. The R&D costs of developing the technology are sunken expenses expended by the

patentee/licensor whether or not it is licensed and, therefore, should not be considered in arriving at a suitable royalty. That is to say, the public's interest in buying a product is essentially unrelated to the cost of developing it (Tom Arnold, Howrey Simond Arnold and White, LLP; Martin Landis, AT&T; Gordon Smith).

Anent royalty standards in industry and the figures often being bandied about as industry averages, John Romary of Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. called industry average royalty rates "folklore" and "suspect as a royalty-rate guide." He pointed out, for example, that "a 5% running royalty for a non-exclusive license helps very little in evaluating an exclusive license on different but related technology and a 1.5% running royalty on technology that can be effectively designed around is equally unavailing in pegging the value of a pioneer patent critical to the competitor."

However, Romary allows as how such averages, though expressed as ranges, may provide additional data points, and he lists for consumer products 1-2%, chemicals and electronics 1-5%, computers 3-5%, pharmaceuticals 4-15%, with an overall range of less than 0.05% to over 20%. He also states that these figures are based on the net sales price of a non-exclusive license and that a "20 to 50 percent premium" and "as much as a 300 percent premium in the pharmaceutical field" may be a reasonable average for an exclusive license.

Furthermore, we should not lose sight of Tom Arnold's "100 Factors Involved in Pricing the Technology License," tabulated and discussed in the "1988 Licensing Law Handbook." This is a handy checklist, even though not all factors play a role in a given technology license. He groups them under the rubrics of intrinsic quality, protection and threats of protection, values brought to the table by the licensee, IP portfolios and markets, competitive, risk, legal and regulatory considerations,

and it is clear from his discussion that among the most important and weighty factors are: a) the stage of development of the subject technology (embryonic, early stage and untested v. tested and commercial); b) the strength of the IPRs (solid v. weak, easy to design around vel non); and c) the degree of exclusivity (exclusive v. non-exclusive).

Even in patent infringement litigation, the courts are guided in the damages phase by many factors that would have been considered relevant by the parties in a "hypothetical license negotiation." Witness the "15 Georgia Pacific factors." (*Georgia-Pacific Corp. v. US Plywood Corp.*, 170 USPQ 369(2d Cir. 1971))

And the fact that many other operative clauses in a technology license have economic weight, as for example, payment structures and schedules, most-favored-licensee clauses, representations and warranties, etc. (according to Gordon Smith), needs to be kept in mind, so that the royalty setting is not the first task in licensing negotiations but the last one, one to be tackled only after all the terms have fallen into place.

And would IP valuation and monetization gurus ever contemplate a royalty-free license that in my experience can also be much more beneficial and profitable in terms of goodwill and increased rate of purchasing of supplies and goods than exacting paltry royalties under a patent license?

## V

As stated above, preachers of the gospel of value extraction and monetization focus on licensing IPRs for obvious reasons, overlooking however that much, much greater gains and profits can be achieved by protection of, and exclusivity for, a company's products and processes. Exploitation of IPRs through manufacturing and sales can be much more beneficial and lucrative than licensing-out.

Market exclusivity under IP protection is by far the primary and most important objective for all but a few of the biggest corporations.

Entrepreneurs, start-ups, small and middle-sized companies would not last very long absent IP protection and market exclusivity. That is to say, such companies are completely dependent on IPRs for their technologies for continued survival in the market place. Licensing their IPRs would set up competitors and this is a valid reason behind the general reluctance to license-out. And pharmaceutical and biotech companies need IPRs and market exclusivity to protect their enormous R&D investments. A recent survey in the UK revealed that 80% of pharmaceutical companies and 88% of technology companies think that protecting their products against competition is vital and this reinforced the fact that patent protection lies at the heart of the development of new drugs and technologies (Marks and Clerk Newsletter, No. 1, 2002). Undoubtedly this is likewise true elsewhere.

As is well known, licensing normally carries little risk but also little reward. Royalty income at prevailing rates amount to, at best, a small percentage of net sales of licensed product, while markups on products sold under IP protection and market exclusivity could be much, much higher, by multiples, and may even reach a 1000% or more. And this is another reason for the innate reluctance to license-out IPRs. Interestingly, 97% of all patents are not licensed for this reason or because the technology they cover is not useful, feasible or marketable (Emmett Murtha).

## VI

The value extraction and monetization advocates can also be faulted for not factoring trade secrets into their calculations. Over 90% of all new technology is covered by trade secrets and over 80% of all license and technology transfer agreements cover proprietary know-how, i.e. trade secrets, or constitute hybrid agreements relating to patents and trade secrets.

As a practical matter, licenses under patents without access to associated, collateral know-how are

often not enough to use patented technology, because patents rarely disclose the ultimate scaled-up commercial embodiments of products and processes. According to Homer Blair (David Rines, Professor of IP Law Emeritus, Franklin Pierce Law Center and past President of LES (USA & Canada)), “in many cases, particularly in chemical technology, the know-how is the most important part of a technology transfer agreement.”

And Robert Ebish (Freelance Science Writer, Golden Colorado) advises: “Acquire not just the patents but the rights to the know-how. Access to experts and records, lab notebooks, and reports on pilot-scale operations, including data on markets and potential users of the technology are crucial.” This is good advice because very few patents cover fully developed technology and hence are easily licensable. Moreover, according to Melvin Jager (LESI President, 2003), “Trade secrets are a component of almost every technology license ...[and] can increase the value of a license ...up to 3 to 10 times the value of the deal if no trade secrets are involved.”

Yet it is even harder to value trade secrets, since it is difficult, if not impossible, to know when or if such a trade secret will be destroyed.

In this context it should be be- moaned that there is an unfortunate and unhelpful misconception about the interface between patents and trade secrets. Many a talk has been given at LES and other programs about the choice of patents versus trade secrets. For example, the series of LES Technology Transfer Seminars deal, inter alia, with the question: “When should I apply for a patent versus trade secret protection?” But patent and trade secrets are not incompatible and mutually exclusive but actually highly complementary and mutually reinforcing; in fact, they dovetail and can be integrated for optimal protection of innovation. There is no need to choose between them; notwithstanding the best mode and enablement requirements.

Patents can protect significant product inventions and trade secrets can cover volumes of associated, col- lateral know-how that does not belong in a patent specification and/or was developed after filing and can serve as a fall back position. Witness the recent decision in *C&F Packing Co., Inc. v. IBP and Pizza Hut, Inc.*, 55 USPQ 2d 1865 (Fed. Cir. 2000) where two C&F patents on a manufacturing process for pizza sausage toppings were held invalid on summary judgement on on-sale bar grounds but their trade secrets on this process were held enforceable after trial and Pizza Hut had to pay \$10.9 million for misappropriation.

## VII

IBM’s and TI’s royalty stream in excess of \$1 billion annually under their open licensing policies is frequently held up as an example of how successful licensing can be. IBM, as is well known, was forced into open licensing by a consent decree with the Justice Department. I submit however that these are special cases that don’t apply to entrepreneurs, start-ups, middle-sized companies and the biotech, chemical and pharmaceutical industries that are rooted in the empirical sciences, where a “patent factory” approach with invention disclosure output “on demand” and subsequent constructive reduction to practice by filing is not possible. Months and years of experimental work may be required in these industries and often conception doesn’t exist until reduction to practice is accomplished, both being then simultaneous.

The value extraction outfits com-