Licensing Aid to the Inventor

Helping the inventor value his discovery will benefit society as well as your client

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We are a nation obsessed with counting our blessings. Agencies, associations and organizations beyond number keep meticulous tallies of our natural resources, our production and our consumption. Every day, we are comforted with reams and reams of reports and statistics proving that we are beyond a shadow of a doubt the richest and most diverse society that ever was.

Yet the statisticians have overlooked the most valuable and treasured of our resources — the inquiring mind and the inventive spirit of our people.

No set of figures, however arrayed, can even begin to show what this hidden resource has meant to us. It is very clear that inventors and innovators have saved countless lives, built many of the mighty industries that drive our economy and have provided literally millions of jobs. Had they been less inquisitive, less creative, we might just now be reaching the horse and buggy era instead of groping toward the stars.

A great deal of mythology enshrouds the inventor. A common concept is a solitary drudge, perhaps a little gone in the head, toiling away in the basement workshop producing gadgets of dubious worth. He lives on dreams and borrowed capital, fondly tolerated by a society as a harmless and even entertaining aberration.

However, the reality is that the inventor is not an eccentric appendage to our society but is rather a vital force in the very shaping and the directing of it.

I want to describe what in my view are the most important factors that an inventor should consider when looking objectively at his or her invention. When these are taken into account, the transition to a successful licensing arrangement will likely be smooth. Technology transfer is one of the most challenging aspects of research and development.

Thoreau, the great American writer and philosopher, said, "If you build castles in the air, your work need not be lost; that is where they should be. Now put the foundations under them."

For inventors, the foundations consist of moving the invention forward, adding value to it, thus making it more salable. It has been our experience that many inventors think that most companies should be interested in their invention. A large proportion of inventors appear to think they can walk up to a company with their invention and walk away with a lot of money. As licensing professionals, we can help the inventor be more realistic.

There are six factors that in our view at The Innovation Centre must be taken into consideration. These are Societal, Business Risk, Demand Analysis, Market Acceptance, Competitive, and Commercialization. I shall briefly discuss them and give examples.

I will describe what we at The Innovation Centre see as a checklist leading to successful licensing for the inventor — a guide to help jump the hurdles.

We recommend an Objective Evaluation of Inventions. This consists of asking the following questions and exploring each one in depth.

1. How will society at large react? (Societal Factors.)
2. How risky is the endeavor? (Business-Risk Factors.)
3. What are the early stage indications or the type of market demand the invention may have? (Demand-Analysis Factors.)
4. How will the final customer perceive the invention? (Market-Acceptance Factors.)
5. What are its strengths and weaknesses relative to the alternatives available? (Competitive Factors.)
6. What is the best way to bring the invention to market? (Commercialization Factors.)

These six questions are explored in depth below.

Societal Factors

These factors tell how the invention is likely to interact with society at large.

Legality: Applicable laws, regulations, product standards, and product liability.

Safety: Potential hazards and side effects.

Environmental Impact: Resulting pollution, litter, misuse of natural resources.

Societal Benefit: Impact on and general benefit to our society.

Business Risk Factors

Only the inventor can determine the level of risk which is warranted.

Functional Feasability: The estimated capability of the invention to function as the inventor intended.

Production Feasability: The ability for anyone to produce the invention at a profitable level, given the technical processes and production equipment required.

*New Product Services Group, Canadian Industrial Innovation Centre, Waterloo, Ontario, Canada; *paper presented at meeting of Toronto Section, LES U.S.A./-Canada, June 1986.*

State of Development: Effort and resources needed to bring the invention to a market or license-ready state.

Market Research: Estimate of the effort required to define a product and a price that the final market finds acceptable.

Research and Development: The magnitude and complexity of applied development needed to meet the requirements of the marketplace.

Investment Costs: The expected return given the level of investment required.

Payback Period: Does the time required to recover investments represent a reasonable payback period.

Profitability: Potential for generating profits.

Demand Analysis Factors

These factors give an early-stage indication of the type of market demand that the invention may have.

Potential Market: Is the total market for all inventions of this nature large enough to justify the required effort.

Potential Sales: Revenue potential.

Trend of Demand: Realistic expectation of a demand for the invention in the future.

Demand Predictability: The predictability of sales to enable development and expenditure planning.

Demand Life Cycle: The period of demand being long enough for money to be made with the invention.

Product Line Potential: The possibility of a family of products resulting from which profit can be made.

Market Acceptance Factors

These factors provide an indication of how the final user or customer will likely perceive the invention. Will it be completely foreign, or will it be readily accepted?

Compatibility: Compatible with current ways of doing things.

Learning: Can the customer understand easily the correct use of the invention?

Need: Solving a pressing problem or filling an urgent need for the customer.

Dependence: Does the success invention depend on other products?

Visibility: Are the advantages evident to the customer after finding out about the invention?

Promotion: Is the cost and effort required for promotion of the invention in line with the financial return expected?

Distribution: Will it be possible to tap into a distribution network for sale of the invention?

Competitive Factors

There are competitive strengths and weaknesses relative to alternatives. The marketplace will always have products that will compete with the invention.

Appearance: The appearance of the invention versus the competition.

Function: Does it work better than the alternatives?

Service: The need for routine service compared to the competition.

Price: Is there a price advantage?

Existing Competition: Is there a serious threat in the market already?

New Competition: New and significant competitive products in the future.

Protection: The potential for a proprietary position on the invention — patents, trade secrets, copyright.

Commercialization Factors

These factors will determine the best way to bring the invention to the marketplace. In most cases, the inventor is encouraged to consider the licensing route.

License or Outright Sale: The transfer of the invention to others for complete development and commercialization in return for royalties or other payment.

Existing Business: The suitability of commercially exploiting the invention through the inventor's present business.

New Business: The suitability of exploiting the invention by establishing a new business venture.

Part-time Effort: The possibility of the inventor's undertaking the manufacturing and sales of the invention on a part-time basis.

The Objective Evaluation is the basis for the evaluation of invention at The Canadian Industrial Innovation Centre in Waterloo, Ontario, Canada.

Edward de Bono, author of "6 Thinking Hats" and "Atlas of Management Thinking" said: "Most of the time we think far too quickly . . . Perhaps tests and examinations have persuaded us that there is a value in getting to the answer as quickly as possible. Yet from a thinking point of view, that is wrong . . . We confuse quick understanding with quick thinking and slowness with being dull-witted. If for 'slow' we substitute 'leisurely' or 'exploratory,' then we can more easily appreciate the benefit of thinking more slowly."

If we as licensing professionals take it upon ourselves to help the inventor to be aware of and to think slowly through these various factors, the chances for success will be greatly enhanced and society will reap the rewards in the long run.