



SOCIETY OF ACTUARIES

Article from:

# Product Development News

November 2003 – Issue 57

## Annual Meeting Session: Hidden Cost of Product Complexity

# Blazing Trails—Using Patents to Recover the Cost of Innovation

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**Y**our Yogi Berra travel planner is useless when there is no fork in the road. Even a decision to take the path less traveled is not an option when ahead of you, as far as you can see, is nothing but a well-beaten trail. Yet, you know there is a better way off to the left or right somewhere.

Blazing a new trail is riskier than following the old one and usually requires an investment in time, effort and money. These are things to be considered before hacking a new path through the forest, or in our case, the forest of product development. The cost of being innovative needs to be identified. This is often overlooked and among the hidden costs of product development.

The basic rule in blazing new trails is, if you have gone as far as you can go and are still nowhere, suck it up and try again. The reality is you can only expect a payoff from success. But, even in success there is a challenge. Success means two things: (1) you have found a new or a better way, and (2),

because of the trail you left behind, so has everyone else. The difference is you've paid for it but your competitors haven't.

So, the recoverability of any time, effort and money you have invested in inventive, trail-blazing product design becomes an issue. Typically, you would want to roll these costs (including the cost of the failures preceding the ultimate success) into the unit expense assumptions of the new product and amortize them through sales of the successful new design. But, if your competitors can benefit from your inventive efforts just by following the trail you blazed, they could offer your new product design at a lower premium because they do not have your developmental cost burden. Typically, in the insurance industry, you could be a leader or a follower. In the past, the only advantage a leader got was being first. This is becoming less of an advantage.

Fortunately, there is a solution to the problem of how one recovers the cost of blazing new trails. Some of us may remember it from the old Part 5 syllabus—toll roads! Toll roads are a metaphor for the way patents can be used to protect your investment in inventive product design processes. Just as a toll road will let you recover the cost of blazing a new trail through the forest, a patent allows you to protect, and it encourages, your investment in new product development by granting you exclusive use of your invention for a limited period of time. You can also license your patented invention to others and recover your developmental costs through royalties (tolls).

Since the development of insurance ideas into patentable inventions is a relatively new business approach in the insurance industry and may seem rather foreign to most practitioners, a little background may be helpful. The U. S. Constitution provides for the protection of intellectual property through



issuance of a patent. Federal law allows a patent to be granted to the inventor of a process, machine, article of manufacture or composition of matter. Typically, in the insurance industry, most inventions fall into the *process* category of patentable subject matter. These types of insurance patents are called *business method* patents. A *business method* is a type of *process*.

In order to receive a patent from the United States Patent and Trademark Office (USPTO) the business method must be new, useful and not obvious. "Non-obviousness" is judged from the point of view of someone skilled in the art of the business method claimed by reference only to "prior art." Prior art is any written publication publicly available prior to the date the invention was made. In addition, it is important for the business method to have some "technical effect." This follows from the fact that business method patents fall into patent class 705 which is reserved for "apparatus and corresponding methods for performing data processing operations, in which there is a significant change in the data ..."

It was the desire to protect innovative efforts in software design which prompted the recent explosion in business method patents. Software has a "technical effect" through its manipulation of data as described in the class 705 definition. Of course, most insurance products are implemented through the use of computers and software. It is natural, therefore, that insurance business method patents be expressed in terms of a data processing, computer implementation. The useful result of these insurance inventions is, typically, a rate or premium calculation although the application of an insurance business method can produce other useful results.

Perhaps an example would be helpful. Patent #5,754,980 is, essentially, for a process used in the issuance of a reversionary annuity policy. A reversionary annuity pays a death benefit to a beneficiary if the beneficiary survives the insured but no benefit if the beneficiary dies first. The business method patented in this invention is the use of underwriting data on the beneficiary life as well as on the insured to set the premium for the reversionary annuity. The use of underwriting data on a *beneficiary* to establish a premium rate for a life insurance policy was not taught by the prior art.

Another, slightly more complicated example is patent #5,704,045, which is for a

method of matching investor capital to insurance risk in a process that can be called insurance securitization. In effect, this new business method "replaces" traditional insurance methodologies by transferring 100 percent of a risk to investors who have put up in an earmarked reserve funds equal to a maximum loss if the insured event occurs. While the securitization process can be worked through an insurance company, the inventors don't require that.

Time and effort went into the development of these business methods. And this is also true for the other insurance inventions with patents issued or pending (currently well over 500). You may be involved in searching for solutions to problems associated with underwriting insurance policies; marketing insurance; structuring or packaging insurance products to reduce cost, spread risk, or tailor benefits to specific needs; or taking advantage in new technologies. One thing that's certain is that any solution you find, once revealed, will probably be easily copied and become a tempting new path for followers—just like a new trail cut through the forest.

The advantage of a patent is that it gives the inventor exclusive use of his or her invention that includes the right to license it to others for a fee. This exclusivity is meant to encourage invention and the sharing of inventive ideas by allowing the inventor the sole opportunity to benefit financially from his or her inventive effort. Of course, the level of financial gain, if any, depends entirely on the quality of the invention. Nevertheless, any inventive effort hidden in a product development solution is intellectual property worth protecting with a patent. A patent allows the inventor to recover his cost of development through either the pricing of products using the invention or receiving royalties for licensing the invention to others.

The use of patents to recover the cost of product innovation is a well-established practice in many other industries. In the insurance industry, however, it has only recently become more widely recognized as a valuable tool. An experienced product development actuary will recognize product innovation when he or she sees it or creates it. Seeking the advice of a qualified patent agent or attorney to determine if this inventive effort is patentable is a step that should be considered. □

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