

Maximising IP value for business February | March 2004 Issue 04

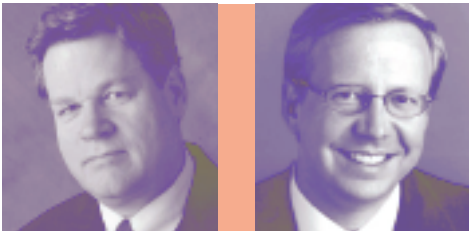
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Intellectual Asset Management

Patent predictions - facts or fictions?

This article first appeared in the February/March
issue of Intellectual Asset Management.
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Patent predictions - facts or fictions?

According to some theories we might be at the beginning of the next golden age of innovation. But then again, we might be wrong

The trouble with our times is that the future is not what it used to be - Paul Valery

I never think of the future. It comes soon enough - Albert Einstein

Chicago, Illinois, 12th January 2004: We are in that final segment of the New Year in which forecasters of all stripes must now fully assemble the predictions of our immediate futures. The annual prediction is a moment when business becomes a sporting event - it sets a scoreboard upon which, 12 months hence, we either win or lose. Betting on the future has had profound consequences for innovation. The history of gambling laid the foundation for much of modern mathematics and the consequences of that pastime are as evident in quantum mechanics as they are in wheat futures. Even the US judiciary has determined that patents are themselves nothing if not novel and useful algorithms. Despite this mathematical infrastructure, the art of prediction in intellectual property matters seems neither art nor science.

For IP, disruption, not continuity marks the really big changes for business and society. Innovation might well be defined as the persistence of fortunate accidents. These fortunate accidents, as measured by economic history, are not very regular - they are rarely even annual events. A big challenge with innovation is that it goes slower than the annual cycle of prediction. In fact, much slower. The pace of innovation is more generational than annual. And let's face it, making a 30-year long-range forecast is unlikely to win bonuses or promotions. The spectators to that game will have either retired or died by the time the score is recorded.

In an ill-fated attempt to discredit capitalism, Russian economist Nikolai Kondratieff (1892-1938) in the 1920s discovered the Long Wave Theory of market systems. The Long Wave Theory, or K-wave, proposes that free market economies expand by recycling themselves through defined

periods of growth, stagflation, deflation and depression. Since the late 18th century the Long Wave trough to trough ranges between 50 and 60 years. The Communists executed Kondratieff for failing to understand the purpose of his research.

A capitalist contemporary of Kondratieff, Joseph Schumpeter (1883-1950) had likewise noticed wave behaviours in the market economies. In Schumpeter's case, the catalyst of each new wave cycle was a burst of innovation that stemmed from technological discoveries and inventions occurring in and around the depression phase of the K-wave. Schumpeter's view of the economic cycle is the Invention-Innovation-Diffusion trilogy. An overlay of the K-wave suggests that bad times breed good science. The intermittency of discovery is also borne out at the research level of science. In *The Structure of Scientific Revolutions* (1962) Thomas Kuhn observes that in the history of science, paradigms of scientific belief are periodically subjected to periods of crisis during which old systems of thought are purged out of the academic community to make room for the next generation of theories.

The common consensus is that the previous downswing in the global economy bottomed out somewhere around the end of World War II. Doing the maths suggests that right about now - 2004 - should be close to the bottom of the depression phase of the K-wave. If Kondratieff and Schumpeter are right, then we should be living on the eve of the next Golden Age of innovation. This proposition deserves further inspection.

Assuming we know with certainty the cause and effects of previous economic/innovation waves it should be a straightforward matter to predict an IP future. But this is a bet with permanent consequences. If the K-wave/innovation cycle are permanent features of the market economy - past, present and future - the sure bets are anything but what businesses have just been making in their labs. The next best option is to bet nothing until the IP winners begin to break out of the pack. And the worst bet of all is the IP that's the next in line product of the current profit centre.

On the other hand, what if we are wrong? Suppose that, just by knowing the wave dynamics of the past economies, we as IP managers have astutely avoided the myopic

behaviour of our business ancestors. Suppose then that our current IP programmes are fully adjusted for the future and we have truly reached the end of history. Which is it? Intellectual property forecasting defies absolute predictability. Yet it has in no way deterred business pundits (typically not IP managers we might add) from basing future profits on the certainty that IP will deliver its share of the bottom line. In fact, because R&D consumes around a third of business pretax profits, the running bet on IP delivering the results roughly translates into a 10% impact on GDPs of the developed nations. Fortunately, given the law of large numbers, we can take comfort from the fact that, even if we all can't be right in our IP predictions, it is impossible that all of us will be wrong.

One sure thing is that IP will get bigger. So big that even *USA Today* (13th January 2004) reports that US patent applications and issued patents were nearly 300% higher in 2002 than in 1982. So too are the awards in patent litigation. For example, the US\$521 million judgment awarded to Eolas against Microsoft for browser infringement. Perhaps we should call this the Large Number of the Law. Then again, if the numbers get large enough, *USA Today* might make IP awards reporting a regular feature, perhaps next to the latest lottery winners. And then who knows? Public outrage at outside awards that results in restrictive legislation on patentable subject matter? Did we really mean sure thing?

Yet predict we must. Still there is one bit of good news in the prediction game. With the demise of communism, it is extremely unlikely that we will be executing poor forecasters like Kondratieff any time in the future. But then again, we could be wrong.

*Messrs Elliott and Malackowski are the Chief Technical Officer and Chief Executive Officer respectively for ICMB Ocean Tomo SLB Partners LLC. The views expressed herein are those of the authors and do not necessarily reflect those of Ocean Tomo, LLC or its affiliates.
delliott@oceantomo.com
jmalackowski@oceantomo.com*