Column
IP Merchant Banker

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Laws of nature and the nature of law

Current proposals for the reform of US patent law are far-reaching. Even so, they would reinforce the hegemony of large corporations in the IP eco-system. Whether this is a wise step for the long-term good of American innovation is open to question

Man must go back to nature for information
Thomas Paine

St Louis, Missouri, 16th January 2005: The year 2006 promises to be an interesting one for intellectual property and its practitioners. The Patent Reform Act, now winding its way the US Congress, promises nothing less than a lively debate, if not a fundamental restructuring of US intellectual property law for the 21st century. The proposed changes would align US patent activities along the line of the European authorities, ostensibly creating a greater international harmony for global patent activities. Clearly intellectual property follows a different path in the United States, and it is also the single largest marketplace for invention. According to Barron's, a 1997 study of the inventors recognised in the National Inventors Hall of Fame indicated that over 90% of the world's great inventors worked in America, and produced 10 times as many significant inventions through the US patent system as the rest of the world combined.

The legislative process will be handicapped by the profound ignorance of most politicians as to what intellectual property is and is not. Given the consequences, we should consider the widest range of credible information in formulating the wisest of laws. In that regard, I submit that Mother Nature herself may be a necessary authority to Congress. Invention has long been considered a unique franchise of human nature. And while invention has developed much of its modern legal identity from principles of natural law, we are also learning that the laws of nature have distributed the capacity to innovate among many more species than we once thought. So perhaps it is reasonable and even provident to look to nature when we contemplate changes in the laws that govern invention. Stated differently, what can ecology teach humanity about the economics and social equity of invention?

The rain forest is often held up as the acme of terrestrial ecology. No doubt there is enormous biodiversity in the rain forest – so much so that biologists often use the exotic flora and fauna as living laboratories to discover novel substances that enhance the human condition. If biodiversity of species is the measure of a better eco-system, then clearly rain forests are a desirable analogy for human economics and the regulation of invention. Invention is about introducing novel and useful change to a system. In the human economy, invention either improves or replaces current devices with ones that work better.

In ecosystems, this concept is understood as succession – the growth, evolution and replacement of a current set of organisms with ones that live better. The human economy is measured by a convenient metric – money. And while eco-systems don't have a currency *per se*, they do possess something equivalent to money, which is biomass. Biomass is the matter extracted from the air, water and soil that is accumulated and recycled through an ecosystem. A growing ecosystem is one that increases its biomass over time through successful integration of dead natural resources into living systems. A successful economy is one that successfully increases the quantity and usefulness of capital over time, and capital is another way to say money. So maybe an eco-analogy for invention is not such a bad idea after all.

But back to the Patent Reform Act. The bill (HR 2795) originally introduced by Lamar Smith, a Texas Republican, would be the most sweeping reform of US patent laws in half a century. The proposed changes include: a shift from first to invent to first to file; deletion of the best mode requirement from §112 of the present law; the granting of injunctions in accordance with the principles of equity; expansion of administrative proceedings in lieu of litigation, and; the limitation of circumstances under which it would be possible to file a continuation and still be entitled to priority date of the parent application.

On balance, these proposed changes would work better for large enterprises than small time inventors and would economically tend to support the prevailing *status quo*. Or in rain forest terms, big trees still rule. The thing about rain forests is that most of the biomass is inside the big trees and not available to the rest of the ecosystem. And while rain forests maximise their total biomass per acre, they do not grow in biomass over time. Although hundreds of thousands of species may live in the rain forest, the vast majority live in biomass poverty. Even when innovative species come into a rain forest, the result is still a rain forest. Succession ceases because there is no system to succeed into. And since succession is the eco-equivalent of invention, invention ceases to be relevant. The rain forest system is so well tuned to its ecosphere, it does not even need topsoil to stay in place. Which is why, when you clear cut a rain forest, you end up with a barren wasteland. Perhaps this is the risk of a rain forest plutocracy.

Living in the American Midwest, most of what I see is field and prairie ecosystems. Compared to rain forests they are dull and boring. In place of dozens of magnificent tree titans are millions of blades of insignificant grass, sharing the biomass. But, unlike the rainforest, grasses make topsoil, which year by year grows and changes the earth. And in changing the earth the prairie grows in biomass – enough so that that grass grows taller and inventive shrubs and trees can take hold. You can even grow corn and start a human ecosystem. Such are the laws of Mother Nature. Our politicians could do a lot worse by way of example. And you know what they say – Mother knows best.

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