



## The Two Faces of Intellectual Property in Brazil

Published : March 01, 2006 in [Knowledge@Wharton](#)

Shortly after the Summit of the Americas took place in Mar del Plata, Argentina, last October, Kenneth Adelman, former U.S. ambassador to the United Nations, wrote a scathing critique of the Brazilian government in the [Miami Herald](#). "Brazil is a prominent member of the axis of IP [intellectual property] evil," wrote Adelman, intentionally invoking the metaphor usually reserved for such global pariahs as North Korea and Iran. According to Adelman, Brazil is one of the few countries that have "flagrantly disregarded intellectual property rights."



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The controversy first burst into the headlines last March, when the Brazilian government publicly threatened to break the patents on four anti-retroviral medications -- [Merck's](#) Efavirenz, [Abbott Laboratories'](#) Lopinavir and Ritonavir, and [Gilead's](#) Tenofovir -- if the global companies that made those drugs did not agree to allow Brazil to produce generic equivalents or buy those patented drugs at discounted prices [See related story in this section]. Eventually, Brazil reached an agreement with Abbott to lower the cost of Lopinavir, also known as Kaletra, from \$1.17 to 63 cents a pill, while still protecting the drug's patent. Under the terms of that agreement, Brazilian manufacturers are not permitted to produce a generic version of the drug for their domestic market. Despite that compromise, Adelman wrote in October that Brazil's strategy is designed, "not to save Brazilian lives, but to spur Brazilian business." Brazil, he went on, is now the world's tenth-largest economy, in part because of "this illegal seizure" of U.S. technology and information.

Pharmaceuticals are not the only sector where the U.S. and Brazil have recently clashed. Last April, the U.S. government gave Brazil an ultimatum to crack down on widespread piracy of compact discs, videos, software and other IP-protected products or lose its trading status as a most-favored nation. U.S. officials complained that the country lost about \$1 billion in revenues in Brazil in 2004 because of Brazilian violations of IP protection. For his part, President Luiz Inacio Lula da Silva has proclaimed his goal of replacing all personal computers in Brazilian government offices with computers based on the Linux open-source platform. Last year alone, this approach reportedly saved the Brazilian government about \$10 million in licensing fees. The Brazilian government has also given away personal computers equipped with Linux operating systems to one million low-income Brazilians who could not afford to purchase more costly Windows-based machines.

Does Brazil have the moral right to distribute valuable drugs, software and other patent-protected products to poor people who cannot afford them, even if that approach means violating Brazil's IP obligations as a member of the World Trade Organization? "The big question with intellectual property is, 'Does the one-size-fits-all system work out?'" says Wharton management professor [Heather Berry](#), who researches the global investment strategies of leading firms. "The issue is, you need someone willing to take the risk to invest in R&D. If you don't provide them with some rights, you won't encourage people to do that."

Although the Brazilian government's public stance against intellectual property has scored points for the country among critics of globalization and the United States, intellectual property experts argue that this approach discourages multinational companies from making investments in Brazil that could exploit the vast potential of the country's biodiversity and the rapidly improving skills of the country's bio-science sector. Fortunately for Brazil, however, not everyone in the country has been following the lead of the federal government, says Michael Ryan, director of the Creative and Innovative Economy Center of George Washington University Law School.

According to Ryan, Brazil has been moving in two directions on IP policy. Although the federal government has pursued a hard line in public against IP rights, "a quiet, little-noticed revolution has been taking place over the past decade," says Ryan, who has studied IP protection and innovation in Brazil, Jordan and elsewhere around the developing world. "With the aim of increasing technology innovation in the marketplace and overcoming debilitating institutional problems, the Brazilian bio-medical innovation system and its intellectual property regime have been substantially reformed." The most tangible sign of progress is Achéflan -- a new medication that was locally developed in Brazil and will be fully protected by intellectual property law.

## Miraculous Mary

**In June 2005, a Brazilian company called Aché announced the launch of Achéflan, the first anti-inflammatory drug based on the unique chemical compound in a native plant known as 'Maria-Milagrosa' -- literally, 'Miraculous Mary.' The drug -- in the form of a cream -- has received the approval of the Brazilian agency responsible for monitoring drug safety and efficacy, and is expected to go on sale in drugstores throughout Brazil within a few months.**

Achéflan's progress has been strongly supported by The State of São Paulo Research Foundation (FAPESP), which provides financial assistance for the commercialization of new, locally based technologies in that state, Brazil's economic powerhouse. "FAPESP funding programs help to correct critical capital market failures in Brazil where macroeconomic problems have long made capital expensive in the marketplace, and where risk-tolerant venture capital has been in short supply," Ryan says.

With little or no public fanfare, state institutions throughout Brazil have also been playing an increasingly supportive role for innovative companies, reflecting the decentralized nature of money and power in Brazil. "Industrial policy is always at the provincial level, and there is a fair amount of money at the local level," says Wharton management professor [Gerald A. McDermott](#), who studies strategies that developing countries use for bringing new products to market and upgrading their industries.

Even on the federal level, Brazil has been taking steps toward strengthening IP protection. In December 2004, the federal government passed Law No. 10,973, which "introduces provisions on incentives for innovation and scientific and technology research in the production environment," says Ryan, adding that this law encourages public-private R&D partnerships and enables public subsidies to private technology commercialization initiatives. "With this law, the legislature and executive [branch] have confronted head on the overriding obstacles to technology innovation and commercialization in Brazil."

A particularly promising area for innovation in Brazil is the development of bio-pharmaceuticals that leverage the vast biodiversity of the Amazon region. Although the Amazon has long been recognized for its tremendous development potential, most efforts to develop the region have focused on extraction of oil and natural gas, mining for minerals, cutting trees and planting agricultural crops. Ironically, Amazonia

possesses "the world's greatest supply of biodiversity, but its flora and fauna have not generally been viewed by opinion leaders as a natural resource of bio-medical R&D opportunities," Ryan says.

Achéflan could mark a turning point in Brazilian efforts to commercialize an IP-protected medication based on the riches of the Amazon. Until Achéflan, other plant-based anti-inflammatory drugs on the Brazilian market have been prepared from imported plants, including some from Africa. The herb in Achéflan has traditionally been used by Brazilians to make medicinal infusions, often sold at fairs. "Achéflan ratifies the utility of the technology policy reforms carried out in recent years by the Brazilian government," says Ryan. "It also demonstrates that public-private R&D partnerships can provide Brazilian and global consumers with valuable new therapies." Clinical trials have shown that Achéflan is effective and safe when used to treat chronic tendonitis and persistent muscular pains. Studies have also shown that Achéflan causes fewer side effects than other medications.

Many bio-scientists believe that Brazil could benefit enormously from taking a stronger position in support of intellectual property rights. The country has developed a significant capacity for innovation in the bio-sciences, says John Kilama, a bio-scientist who is president of the Delaware-based Global Bioscience Development Institute. "Over the last 15 years, Brazilian universities have improved their level of competence. A lot of innovative research is going on in the biosciences, including biotech, at such universities as the University of São Paulo."

Despite such progress, "when it comes to IP, Brazil has a functional private sector but a dysfunctional government," says Kilama, who has given a series of seminars at the University of São Paulo about how Brazilians can participate in the global bio-economy. "The private sector is up and running with IP but the government is saying, 'We have to look at IP in terms of providing greater access to pharmaceuticals and other products.'" Rather than focus on the short-term benefits for the poor that can be derived from softening Brazil's IP protection, Kilama urges the Brazilian government to consider the long-term positive impact of stronger IP protection on the country's entire population. "The problem is not IP itself; the problem is how to get Brazil to use its enormous private sector, which is very innovative, to create wealth that enables the poor to afford access to drugs, instead of going out and making it difficult for Brazilian companies to compete."

So long as Brazil takes a hard line against IP in widely publicized confrontations, says Kilama, "it discourages investment and shortchanges the private sector. Instead, Lula needs to explain to the left wing that its best interests lie in increasing the pie by applying new technology that is protected by IP, not by trying to grab a larger share of the pie that exists today. The good news is that the Brazilians have the technological capacity to expand the pie."

[Mauro Guillén](#), Wharton professor of international management, sees some room for a possible compromise in U.S. policy. "The U.S. is correct in saying that it is very important to protect intellectual property, and you are stealing it if you use it without providing any compensation," he says. "But the U.S. government may want to be a little more pragmatic.... At the end of the day, if firms in other countries use your technology, you become the standard. Maybe the right way is to collaborate with them, and see how much they can pay."

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