

In Search of the Perfect License

The industry could sell software PURLs—permanent use and resell licenses—like registered securities in a “stockware” market. Such a system would scale back monopolies, reduce piracy, and protect buyers from product obsolescence. **By JORDAN POLLACK**

Once upon a time—and a very good time it was—book publishers, record companies, and movie production companies made products that they licensed under terms that were pretty easy for the average consumer to understand, even if they didn't think about them very much.

When you bought a book or record, you had some pride in ownership. You could pass it on to your children. You could loan it, sell it, or even rent it—a feature that legally enables libraries and video stores. We call this type of license a “permanent use and resell license,” or PURL.

On the other hand, if you paid \$5 for a movie or \$50 for a Broadway show, you bought a “read once license.” You were ROLED.

Finally, if you rented an object like a movie or a video game, you paid for a “time out license.” It was easy: You paid the TOL and you knew the time limit.

The social contract establishing copyrights as limited-time monopolies worked well during the Industrial Age, when the means of production were the printing press and the injection molder. But it has not adapted well to the Information Age, when the means of production is the duplication of bits. Copyright objects have been torn apart into their three fundamental elements: the license (legal), the content (information), and the token (physical).

The software industry, which sells its products in little boxes in stores—next to books, records, game cartridges, and videotapes—has exploited the separation of these three components, taking unfair advantage of a public long used to buying, and thus

owning, its books and records.

After describing the major problems that arise in software and its licensing, I would like to propose a new social contract that would solve these problems, provide strong anti-piracy protection, and maintain opportunity for wealth and innovation in the software industries while protecting both purchasers and content creators from the theft of their property.

LICENSING BLUR

By fudging the lines between the different schemes of licensing, software manufacturers have created many problems. One is the development of interface-based monopolies.

Economists have recently distinguished classic monopolies according to their “lock-in” or “increasing returns” characteristics. The unfortunate result of software lock-in is private ownership of a public interface standard. Where is the competition in alternative operating systems that can run “Wintel” appliances? Investment in competitive services is a waste because an interface-based monopoly—an IBM, if you will—protects itself from competi-

tion through rapid and unnecessary tweaks. Think of Windows as the new electric outlet: Microsoft can change the shape and voltage specifications without any public comment, force your old appliances to break, and sell you new appliances that may or may not plug in properly.

Another problem with the blurring of license types is the issue of public contribution. Though the public invests heavily in the establishment of a standard, it is denied the benefit of that investment when the standard is under private control. Our huge national investment in Windows 95 or



Illustration by Tim Foley

NT4 or Office 97 will soon be rendered as worthless as our national investments in Office 95, Windows 3.1, Windows 3.0, and Windows 386—to say nothing of the umpteen versions of DOS.

The blurring of licensing types also begets an erosion in software quality. Allowing charges for upgrades—which are much higher than the actual cost to software makers—creates an incentive against too much product quality. Consumers who are too happy with their “old” product will never upgrade. By the same token, book publishers cannot force customers to throw away and repurchase the same information.

Then there's the problem of piracy. Software publishers face some loss of income from rampant private sharing and lack of overseas enforcement. There is little incentive for people to stop sharing, or for the U.S. Army to invade Israel or China in order to make Bill Gates richer.

On the other end of the spectrum is the problem of predatory behavior. Software companies engage in all sorts of bad practices in pursuit of their monopolies, such as bundling, tying, slamming, dumping, competitive upgrades, format encryption, and the creation of intentional bugs. Microsoft has been skewered for months in federal court here over its marketing of Windows and Internet Explorer.

Finally, there's the touchy question of pricing: What is a software license really worth? Software value is a myth, enforced by the artificial scarcity of monopoly, fashion, bandwidth, or prohibition. Prices are simply dictated by the monopolist, either high to gouge consumers or low to starve competitors. If infinite copies were placed on auction, the price would stay at zero.

NEW TEMPLATE

What can be done, short of new and stifling government regulation, to stabilize and rationalize the natural monopoly rewards in the business of information property licensing?

The answer begins with consideration of the central issue—the lack of a truly free market.

A PURL is like a bit of money: You can't keep a copy when you transfer it. Software publishers who make their own PURLs worthless through forced obsolescence are like private banks printing notes and then declaring them worthless.

One way to solve all these problems would be to securitize information properties through PURLs. Thus, PURLs would be issued in limited known quantities, with upgrades priced at the cost of the physical token. They would be treated as registered securities that would accrue value through supply and demand on brokered secondary markets.

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be needed. Simply a few bold software or shareware companies, who realized they were doomed because Microsoft wanted their niche, would start to trade their licenses as “stockware” and establish the tradition. Our collective social understanding of stock markets, norms of behavior, fraudulent transfers (i.e., forced upgrades), mergers (new suites), secret dilution, hyped information (vaporware), insider trading, international participation, government regulatory needs, and enforcement costs would all transfer easily into this template.

A single developer might offer only 10,000 license shares, and a small company might issue only 100,000. A large company might issue one billion licenses and only sell 10 million, keeping 990 million in reserve, which at a going rate of \$100 per copy is a significant war

chest. In such an environment, systemic incentives would emerge for companies to increase demand for their products by increasing quality.

License prices would be volatile, driven by quality, confidence, market perception, and the number of copies known to be available or in reserve. Rather than allowing black market CDs—which act as physical tokens, changing hands like bearer bonds or bank notes—ownership transfers would be transacted through trusted brokers, like stocks in the securities markets, and capital gains would be taxed. Registration and transfer agents would also protect customer privacy from vendors.

When the value of limited PURLs rose too high, “splitting” would both lower costs and enable early “investors” to share in the wealth they helped create through choosing to standardize. This would solve the public contribution problem.

How would securitizing solve the piracy problem? Since the public would have a formidable interest in keeping the value of its investments high, it would not be cool for users to circumvent the terms of their licenses. Most people who share software and music tapes are not also photocopying dollar bills and stock certificates. Currency crashes are no fun.

While the raw copying of information off any token might never be entirely halted, the validity of sales, resales, and installations of licenses, through software brokers and electronic secondary markets like Nasdaq.com and witcapital.com, could be fully policed. Online trading of securities is quite cheap—and getting cheaper. Only if you owned a license could you install or run the software.

Another useful technological model for a securitized system is the floating license, which flourishes under Unix. Your company would buy a number of simultaneously usable licenses, which would be checked in or out through a server. An Internet system for controlling floating PURLs would enable soft-

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ware to be sold to, and serially loaned by, public libraries; overdue fines would accrue if the de-installation were delayed.

THE UPGRADE ERA ENDS

The major question is: How can big software companies thrive without their upgrade fees, which essentially make customers pay over and over again for the same old thing? The truth is that the age of upgrades to packaged software is over for all but a few top monopolies like Microsoft and Adobe. Most upgrades are already free over the Internet. The need to generate more capital for improvements and other products would be solved through stored value: Companies issuing licenses could withhold large quantities for later sale to raise capital

for further development—assuming their fees from service and technical support did not suffice.

This proposal would also work for shareware companies, who would make more money if consumers observed how much volatility there was in a market, bought the license, tried it, and resold it if they weren't satisfied. Instead of "try and buy," one would sell code on an open market with an "uninstall and resell" box.

Finally, imagine the next "open source" project after Linux: "We are launching an open source project. There will be only 10,000 resellable licenses issued. Those who contribute and those who adopt early will earn license options."

What about the monopoly problem? Microsoft is not the issue, just the

largest symptom of the game gone awry. Other companies play the same tricks of forced upgrades and predatory acts. If the rules are changed, these profit-maximizing organizations will change their behavior. Who would throw away a permanent WordPerfect PURL with free upgrades, for a Microsoft Word TOL, even if the first month's rent is free?

If our society truly believes in free markets and property rights, then the consumer's right to own and transfer PURLs must be defended, or we will become a nation of info-renters. Once Teledesic's "Celestial Jukebox" is online, it will cost \$5 per hour, per program—whether that program be Microsoft's Word or Paramount's "Star Trek." By then, we may have to sell our houses to pay the TOL. ■

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