

Long John Software and the Digital Jolly Roger

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In unleashing our treasure ships of software bits and bytes upon the world, we have also opened it up to a new generation of pirates.

Even though it prominently displays a city vendor's license and health certificate, I am hesitant to purchase anything from Eddie's food cart. You just don't know where his food has been. Sure, most everything is sold in sealed packages, but many of those packages look as if they were snatched from the back of a pickup truck. Still, Eddie serves a good cup of coffee and has a loyal customer base, including limo drivers who are waiting for their employers to finish their power lunches at the nearby Costosi's restaurant.

I was chatting with Eddie recently when he suddenly asked, "Do you need some software?"

"Excuse me?" I asked. It never occurred to me that Eddie might be doing some computer system design work in his spare time.

"I was just wondering if you needed some software," he continued, "because you look like the sort of guy who might. And I know a guy up in Columbia Heights who could get it for you cheap."

Perhaps it was neither the time nor the place to be inquisitive, but I

couldn't resist asking, "Is it the real stuff or is it pirated?"

Eddie grinned in a way that almost made me believe he might be a survivor of the golden age of the Caribbean buccaneers. He then gave me a quick description of how the copy protections of a major software vendor could easily be circumvented. He spoke as if every 12-year-old shared this knowledge. "The software works perfectly well," he added. "There are a few parts of the program that don't work, and you can only save your data in the *.rbd robado format, but it only costs \$10."

"So Eddie belongs to a pirate gang," I thought as I declined his offer. It's a strange business to operate on one of the city's busiest street corners, but the world is a confusing place. He has operated his food cart there for years, despite Costosi's efforts to stop him. Likewise, I suspect that he will be able to peddle his software for years no matter what the software giants attempt to do.

PARALLEL STRUGGLES

Of course, Eddie's cart is only a tiny part of global software piracy.

The Software & Information Industry Association estimates that the industry lost US \$28 billion to pirates last year. A report from the Business Software Alliance notes that across the globe, \$2 in illegal software is racked up for every \$1 in legitimate sales. In some countries, such as Albania and Zimbabwe, virtually all software is pirated. In several big markets, notably Russia and China, more than 80 percent of software is illegal.

Software piracy, like the classic Caribbean piracy of the 17th and 18th centuries, is a crime against a distribution network. The Caribbean pirates preyed on the wealthy but fragile transportation route that connected Spain to its Central and South American colonies. The pirates extracted great wealth from this vital link, which carried weapons and manufactured goods to the colonies and returned millions of silver and gold coins to Spain. They operated freely in the region until the European powers took deliberate, organized steps to eliminate their bases of operation. The growth of the British navy in the 17th century greatly reduced piracy in the region. Nonetheless, pirates vanished from the Caribbean only when the region ceased to host an important distribution network.

Compared to their oceangoing counterparts, software pirates will be harder to eliminate, as the information industry has given them a technology that lets them hide their activities far better than William Kidd or Henry Morgan could hide their ships on the deserted beaches of unknown islands. The struggle against piracy will be one of the defining periods of the information age, as it will test the software industry's ability to project its power, to control the actions of reclusive pirates in distant lands. Just as Spain began to falter when it lost access to the mineral wealth of the Americas, this industry will find itself in deep waters should it lose

access to the rich revenue streams that it enjoys.

LONG-TERM PROBLEM

Like so many problems of this world, software piracy has existed almost as long as software itself. One of the earliest computer pioneers, Calvin Mooers, noted that the software markets of his era were “characterized by a kind of anarchic morality in which all software is fair game for outright rip-off.”

Then, as now, many considered the problem to be one of ethics. They claimed that people stole software because they didn’t know any better. “Computer software and data are intellectual property,” wrote one educator. “The problems start when people cannot, or will not, make the mental transition for physical to intellectual property.”

Yet, piracy is not merely a failure to recognize right and wrong. Mooers noted that the early pirates were “not only individuals; among them, in fact, are a few of our largest and most highly respected corporations.”

Companies have many reasons to encourage piracy, reasons that can cause them to take actions they know are illegal. In a piracy case of the mid-1980s, two different firms copied a well-known piece of system software and marketed it as their own. At first, neither acknowledged that they had done anything wrong. Instead, they claimed that they were merely making a shrewd, though admittedly aggressive, business decision.

A friend of mine, who worked on the software before it was stolen, decided to approach the problem as a missionary among the lost souls, just as the European churches sent emissaries to convince the pirates of the errors of their way. This friend tried to stop the piracy by organizing a conference for all parties to the complaint to discuss the foundations of morals. Sabers and cutlasses were to be left at the door.

In addition to the usual round of lawyers, principals, and mediators, this conference included a Protes-

tant minister and a Buddhist monk to lead the discussion.

At the meeting, one of the firms had a change of heart. Light shone from the heavens. Scales fell from their eyes. They recognized the evil of their ways and immediately repented.

The other firm, however, didn’t react in quite the same way. They found the talk of right and wrong interesting, in an abstract, intellectual way, but they still insisted that they had behaved by the rules of the market.

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In the end, this defense was no better than the claim that pirates make the market more efficient by redistributing surplus wealth. The officers of the offending corporation ended their days in jail, guilty of theft on the high seas.

FIGHTING BACK

In the grand time of Caribbean piracy, the most effective pirates were not the lone ships preying upon the Spanish, but national pirates, privateers whose ships were sanctioned by the United Kingdom or the Netherlands to attack foreign commerce. The most famous of these privateers were the buccaneers, the Brethren of the Coast. “They formed a seafaring republic which did as much as any nation to erode the Spanish dominance of the New World,” observed one historian.

To defend against the privateers and buccaneers, the Spanish had to build a substantial infrastructure in the region. They created a navy, a string of heavily armored forts, and a communication network to keep the residents informed of actions in the area.

MODERN-DAY BUCCANEERS

The buccaneers of software are not from the lowlands of Europe or

an island kingdom in the North Sea but the lands of East Asia. “American companies are losing ‘many millions’ of dollars in potential business in China,” claimed one observer, because “software has been widely pirated here.” The US government charged that this piracy “required concerned efforts by Chinese engineers,” and hence pointed to a “very serious decision made at a very high level in the Chinese ministries, research institutes and state-run corporations that have acquired US software.”

The software industry responded to the evidence of national piracy by strengthening its global defense infrastructure. The fortresses of the software distribution routes are not made of stone and steel but of copyright standards, trade agreements, and treaties to share the burden of policing the world’s computers.

This defensive effort has been only marginally successful. Some of the biggest national markets outside the US, notably those of China and Russia, have seen only small reductions in piracy. The piracy rate in China has fallen from a high of 92 percent to 82 percent. The rate in Russia has dropped only from 87 percent to 80 percent. The best news from these markets is the fact that they’re expanding so rapidly that the revenue from legitimate products has grown substantially. The Business Software Alliance indicates that in China, this revenue increased 88 percent from 2005 to 2006.

EFFECTIVE PIRATE NETWORKS

The Caribbean privateers and buccaneers were replaced by individual pirates, crews that mutinied against their captains and preyed upon the Spanish trade. Their ships were harder to eradicate because they found ample hiding places on isolated islands or in the small bays of the North American continent.

Their modern counterparts are the individual pirates who distribute software on peer-to-peer networks or offer it for sale in small stores (or

at street corner food carts). In some regions, the small pirate distribution networks are far stronger and more effective than legitimate distribution channels.

"They are the only way you can keep your computer operating in some parts of the world," is how my friend Anna explained these networks. "The stuff you buy at the normal computer store comes with a disk that you load first. It prevents the annoying little registration thing from coming up."

Anna had just returned to the US after working for two years in central Asia. I was inclined to discount her claims, as she comes from the generation that learned about electronic music through the illegal file-sharing networks of the 1990s, the most visible aspect of piracy at the time. However, she quickly argued otherwise.

"It's a poor place," she said, "and so it is the remainder sale site for software from all over the world. If you buy movies, for example, they might come from the US, Australia, Europe, or Hong Kong."

"So why does that encourage piracy?" I asked.

"Each of those legal movies has a digital code saying where it's from. If you try to play it with legitimate software, the computer will eventually decide that you're in some specific part of the world, and it will prevent you from playing anything from another region.

"The only way to fix the problem is to use a pirated video player. You buy bootlegged DVD software for \$1. When the pirates strip out the security, they also remove the code that sets the region. If you don't use that, you'll eventually have a computer that can only play films that were marketed for Micronesia."

If we follow the strategy that was used against the 17th-century Caribbean pirates, we would attempt to reduce piracy in distant markets by strengthening the distribution network, making it easier to buy software at a distance and easier to track the usage of software in remote

places. Some authors suggest marking each copy of software so that it could be tracked through the network. Such technologies would "dissuade the pirate by increasing the likelihood of being caught."

At the same time, it seems unlikely that technology by itself will entirely prevent piracy. Anna likes to remind me that some of her pirated software uses the Interpol antipiracy screen as the background to the main menu. "It's my favorite part," she says. "The digital Jolly Roger." It's the mark of the modern pirate stolen from antipiracy forces.

A THIN LINE

In looking for a unified solution to software piracy, some authors have suggested deploying an economic policy against stolen software. It's an obvious suggestion for an industry that has so thoroughly championed the market.

Most of the highest piracy rates are in countries that are poor, have no indigenous software industry, and can't easily enforce national copyright standards. In such countries, "focusing purely on enforcing intellectual property rights will have limited success," argued one pair of researchers. Legislative "and educational weapons may win a few battles, but the overall war against piracy cannot be won without addressing the current draconian pricing policies." They concluded that we can reduce the piracy rate in such countries only by making the price of legitimate software competitive with the price that pirates offer.

We probably won't eliminate software pirates in the near future, and we probably won't do it with a single strategy. We don't have the technical, financial, or political resources to do anything more than whittle away at the piracy rate. Furthermore, some legitimate firms have much to gain from illegitimate software. Piracy can keep a competitor out of the marketplace, increase the acceptance of certain ideas, and build a demand for related products.

Finally, the line between aggressive capitalism and organized crime can be thin and ill-defined at times. Piracy to one person can be a low-cost supply opportunity to another. Aggressive pricing can be a means of stopping a black market or a way to undercut a legitimate competitor. Accurate product tracking can strengthen a distribution network or it can be an invasion of privacy.

Should the software industry succeed in reducing piracy, it will be able to claim that it has spread its business culture and ethics to every corner of the globe, an accomplishment that was denied the Spanish empire in the 17th century.

If we draw near to that point, we might find that we start to romanticize software pirates, just as we have romanticized the pirates of the Caribbean. Through the writings of Daniel Defoe, Lord Byron, and Robert Lewis Stevenson, we have come to view pirates as daring individuals who expressed their own individuality in the face of an oppressive colonial regime.

For the moment, we still tend to view software pirates as petty thieves, no matter how large an operation that they might run. However, if we come to feel that our lives are too much under the control of Redmond or Silicon Valley or some other technical capital, we might come to give our pirates a more heroic light and could discover, like the Spaniards of the 18th century, that the future better remembers us for our piracy than for our admirals of industry, for the digital Jolly Roger rather than for the flags of software corporations. ■

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