

### The Stop Online Piracy Act (SOPA)

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#### The Stop Online Piracy Act (SOPA) Bill Report One: It's Free!

#### January 19, 2012

Hello from Your on the Street Reporter. These reports deal with the House of Representatives Bill 3261, named the Stop Online Piracy Act (SOPA). This bill is associated with the Pro-IP Act of 2008 and a Senate bill named Protect IP Act (PIPA).

Before discussing this bill, take a walk with me through several avenues of America's commerce: Here is a sampling of one day in the life of a typical American consumer:

- My attorney called to discuss the basis of his fees for resolving a real estate matter. I informed him his products were free and hung up the telephone.
- My accountant mailed an invoice detailing his services of helping me fill-in my tax return. I tossed the bill in the trash. His work is complimentary.
- My yardman left a bill on the door for removing snow from the driveway. I called and told him to find another sucker. I educated him to the fact that snow was free, so is his removal of it.
- We had a new dishwasher installed. Sears left an invoice on the counter. An invoice for paying for something? That's little more than trash. I stuffed the bill in our Sears trash compactor. After all, dishwashers are free. So are trash compactors.
- I was irritated to find I could not get a free copy of *USA TODAY* from a vending machine. I had to fork-out four quarters for what is supposed to be free: information. What's a vending machine anyway? Sounds suspiciously like something that is not free.
- I left the capitalistic vending machine and entered into a grocery store that housed...a stretch of the imagination: groceries. The store also had a post office, a pharmacy, and a flower shop. I bought bananas, postage stamps, medicine, and flowers. Upon being presented four bills for these products, I informed the predatory clerks of a simple fact: fruit, stamps, and drugs are free. I paid for the flowers. Nature comes with a cost.
- Reporterette and I had dinner recently at a local restaurant. I left without paying. After all, restaurant food is free. By the way, I also failed to tip the waitress. She can fund her own food.

None of these bill-avoidance larks happened. All events took place over a few days, and I met all the obligations. I even paid for nature's flowers.

These imagined scenarios are no more ridiculous than what is happening on the Internet. The mantra for the so-called digital age--- and promoted on the Internet--- is "Information is free!

As if translating what was once hard copy books or analog song tracks into binary zeros and ones suddenly becomes justification for undoing over two centuries of legal practice about intellectual property rights. Not to mention refuting clauses within the Constitution itself.

Information? My landscaper holds the information to save my trees from fungus and my driveway from snow. My lawyer possesses the information to save me from frivolous lawsuits. Everyone has their price for providing a service. That's how commerce works. That's how societies function. That's how you and I pay our bills.

Even writers and composers of music and videos need to make a living. Granted, they are not shoveling snow or moving numbers around on a balance sheet. They are creating information.

The notion that information is free is an assault on common sense and an affront to people who pay their bills by toiling away in the profession of information creation. The slogan of "information is free" is counter-productive to free enterprise, anathema to humans' creative spirit. The notion undermines the underpinnings of a commercial society.

The situation with information is just the opposite of being free. Information is so valuable that it should not be free, at least for the information created by those who have taken the time to create it within their own private-enterprise sphere. Information created by publically-funded organizations is another matter, one reason government work is not copyrighted.

In this regard, information is no different than that of a dishwashing machine. We should pay for both, partially because their use makes for a better life, but also because each of us must make a living by being paid for what we create and do. If we don't get paid, eventually we don't create.

Recently, I watched a movie titled "Oceans."<sup>1</sup> It is an extraordinary film about the wildlife inhabiting the salt seas. It cost considerable money and entailed much toil to produce. It was evident its creators were dedicated to craft a wonderful, exhilarating work-of-art. Its creative content cannot be easily duplicated.

But in many situations, "Oceans" can be very easily copied and distributed by individual parties to perhaps thousands or even millions of viewers---all without compensation to the creators of "Oceans."

The Stop Online Piracy Act bill was written to address an issue of great importance to all of us. Simply stated, SOPA declares: If we do not pay for "Oceans" we will end-up with no "Oceans." At least of any quality, we will continue to be assaulted with YouTube videos showing our relatives' dogs taking a leak in the oceans.

Why is paying for information different from paying for an automated dishwasher? In the end, both are the result of the *intellectual properties* of humans. So, if we do not pay for an automated dishwasher, we eventually will end-up with manual dishwashers (you and me).

<sup>&</sup>lt;sup>1</sup> Jacques Perrin and Jacques Cluzaud, Encore Family Channel. Don't be offended, but I paid to watch this movie.

How SOPA addresses these issues is another matter, which I will address in later segments of this report.

#### **Content Creators**

I am not a neutral party on this subject. I am a *content creator*. I create work that is being pirated, illegally copied, and distributed without my receiving compensation.

Who is making the money on my work? Often, no one. Parts of my books or videos are extracted (maybe all, but please don't tell me; it's too painful) and sent without charge to someone's friend or colleague. It is a practice that has been going on since books and videos were invented. This tradition is not the core of the problem. An occasional lifting of copyrighted material does not get anyone's dander up. The problem has come about because of the Internet's "multicasting" capabilities.

#### **An Electronic Post Office**

Using a powerful Internet technique called "IP Multicasting" I can create a mailing (email) list of *many* Internet Domain Names (such as UylessBlack@aol.com) and associate *all* these names with only *one* Domain Name (such as BlacksStreets.com).

Using the Internet, and keying-in BlacksStreets.com into the send window of an email, I can send my own work (such as *Networking in 24 Hours*), or the work of someone else (such as Bob Dylan's latest hit) to thousands, even millions of recipients. After creating such a list, with the touching of a few computer keys, I can do this over-and-over again. Each time I do it, I undermine (legally, as it's for personal use) potential income to Uyless or Bob.

And each of my recipients can do the same. On and on. It becomes a cascade of Internet traffic that is over-powering and technically infeasible to stop, akin to stopping the water cascading over the Niagara Falls.

Using a Web site, it is even easier. People come to me! At my Web site, I passively await surfers to find my site and look at my wares. Perhaps buy a book. *Maybe download something that was created by someone else, while looking at the ads at my site that make me a lot of money.* (This writer's proclamation of purity: I don't do ads.)

The same kinds of multicast/multiuser access capabilities exist with the social networks, such as YouTube, Twitter, and Facebook.

Times have changed. A few years ago, sending a part of a book (or for that matter, an entire book) required a lengthy process to send someone pirated material: buying an envelope, purchasing a stamp, filling-in addresses, licking the stamp and putting it on the envelope, licking and sealing the envelope, taking the envelope to the post office. Because of the inherent limitation of this process, it was not a big deal to send copyrighted material to friends and relatives. It did not eat into much of the income of the content creators.

#### **Content Provider**

By my sending a copy of Bob's song (or my book) to someone else I take on a new role. I became a *content provider*. And herein lies the heart of the issues revolving around SOPA. Many companies use the Internet to distribute (provide) content they do not create, nor do they own, nor do they have permission to copy. Yet, these companies make money on this content by selling ads on their sites, millions of dollars.

Various estimates are published on the amount of pirated content that is sent over the Internet. A study by NBC claims that nearly 25% of "global Internet traffic consists of pirated content."<sup>2</sup> That is a lot of potential royalties lost to content creators and a source of huge revenues for content providers. Whatever the figure may be, content providers, such as YouTube have become immensely wealthy, thanks to the creativity of others.

#### **My Bias Shows**

Aside from my role as a person who writes and therefore is biased against the idea that the information I create is free, I emphasize that all parties---be they content creators, providers, or privateers---ultimately will lose if incentives are not provided for creators to create.

I wrote *Networking in 24 Hours* as (a) an intellectual exercise and (b) to pay some bills. For me, if (b) is not there, as much as I like to write, (a) will be dulled. Perhaps not to the extent of saying to myself, "I will not write." But the idea that information is free represents a disincentive for me to create, as well as for millions of others who have to write, or do something else to make a living.

Rewarding creativity is not restricted to rewarding Uyless and Bob for their creating information. It is also about rewarding Edison and Bell for their creating instruments for the conveyance of information. Granted, copyright and patent laws are different. But their underpinnings are the same and the essence of competition and creativity: Provide a carrot to move the horse forward.

The debate around SOPA has been narrowed to "what is on the Internet and who gets the money" for its showings. So, I will bring the previous somewhat philosophical statements down to a more practical level. Robert Levine, whom I quote extensively in this report, says it well, "Like TV, the Internet is only as good as what's on."<sup>3</sup>

If we want "good stuff" on the Internet---videos such as "Oceans" as opposed to footage of our cousin's dog passing its contents in the ocean---we should...must...open our wallets. It is not only the ethical thing to do, it is the smart thing to do.

#### **Public and Private Content Providers**

Regarding the large-company content providers (I use the term *public content providers* to identify these companies), such as Netflix and YouTube, their profits should be shared with the content creators.<sup>4</sup> As they say today, this idea is a no-brainer. These providers have the

<sup>2</sup> Robert Levine, *Free Ride* (New York: Random House, 2011), Kindle version, location 86.

<sup>&</sup>lt;sup>3</sup> Ibid., hard copy, 4.

<sup>&</sup>lt;sup>4</sup> As discussed later, Google, the owner of YouTube, has implemented Content ID to address this matter. It has problems, but the intent is important.

wherewithal to make this happen (usage statistics and the like). In the long run, I am optimistic enough to believe these companies understand that they need high-quality content, and such content will only come if there is incentive for it to be created and produced.

In addition, some content providers are becoming content creators. Some are both, such as HBO. As such, these companies cannot continue to take the stand of only a content creator or a content provider.

One problem comes from the small, private content providers (you and me) who copy material and multicast it to others. Logistically and technically, this practice is not feasible to control and this sort of multicasting is noise on the spectrum of pirating. Sure, it's a big deal but not *the* big deal.

The big deal comes-about when pirated material is posted on public sites. It almost automatically finds its way into millions of user machines, often pre-empting sales of legitimate products.

As best I can determine, SOPA has been written to address this problem. This statement is equivocal, as I have not read the SOPA bill in its entirety. I've looked through the bill before writing segment one of this report and will give it more study before filing segment two.

#### **Bias Revisited**

In closing segment one, I will again show my bias, and also hope to move you toward an appreciation of the content creator. I've a bit of a problem with this idea, as my taking the role of a content creator puts me on the same list as the creators of FOX sitcoms. That aside, consider the following (from Mr. Levine's book):<sup>5</sup>

A 2010 study by the Pew Research Center's Project for Excellence in Journalism found that more than 99 percent of blog links to news stories went to mainstream media outlets like newspapers and networks. File-sharing services are filled with copyrighted music. Seven of the ten most popular clips in YouTube history are major-label music videos. Amid the Internet's astonishing array of choices, statistics show that most consumers continue to engage with the same kind of culture they did before---only in a way that's not sustainable for those who make it.

(Therein lies the conflict.) Most online companies that have built businesses based on giving away information or entertainment aren't funding the content they're distributing.

In Silicon Valley, the information that wants to be free is almost always the information that belongs to someone else.

(The Internet) "has empowered a new group of middlemen, like YouTube, that benefit from distribution without investing in artists."

The core copyright businesses---music, film, television, and computer software--account for about 6.5 percent of U.S. GDP.

<sup>&</sup>lt;sup>5</sup> Robert Levine, hard copy, 3, 6, 7, and 9.

#### **Initial Thoughts about SOPA Supporters and Detractors**

From this list drawn from *Free Ride*, it is evident I support legislation that protects copyright holders and penalizes pirates. My bias shows. However, upon reading both the pros and cons about the issue---assuming these people have actually read the bill---my initial take is that SOPA is first, more of a technical solution to what is essentially a legal problem, and second, it over-reaches, taking Uncle Sam in to a cloud where Uncle does not belong. I will amplify and/or amend these two impressions after I have read the bill in more detail.

There is also a third and critically important point: American-based Internet companies are already taking their own actions to address the problem of pirating. The major problem will most likely be pirates residing in other countries.

Thanks for reading. I will now turn my attention to the bill itself.

#### The Stop Online Piracy Act (SOPA) Bill

#### **Report Two: Summary of SOPA and a General Assessment**

#### January 24, 2012

From USA TODAY, January 20, 2012, page 3A:

## Website execs accused of pirating films

One of the world's largest file-sharing sites was shut down, and several company executives were charged with violating piracy laws.

A federal indictment accuses Megaupload.com of costing copyright holders more than \$500 million in lost revenue from pirated films and other content. The Justice Department said in a statement that four executives were arrested in New Zealand at the request of U.S. officials. Two other defendants were at large. Before the website was taken down, it posted a statement saying the allegations were "grotesquely overblown."

Later, a loose affiliation of hackers known as "Anonymous" claimed credit for attacking the Justice Department's website, which was inaccessible Thursday afternoon.

I have read the seventy-eight pages of the House bill, The Stop Online Piracy Act (SOPA, H.R. 3261). Fortified by coffee, I withstood this instant sleeping pill to the extent of gaining a general understanding of its contents.

Like any legislation, a single sentence buried in a clause can have an impact far beyond the space it takes-up in a bill. The bill contains 16,672 words. If my reports on SOPA contain inaccuracies, please know it will not be from skipping over the words. It will come from my having become cross-eyed while reading them.

The public verdict is in: America's citizens dislike this House bill. After a 24-hour blackout by many Websites on January 18, several key lawmakers have withdrawn their support of the legislation. It appears much of the discontent stems from the blackouts and not the bill itself.

The adage, "Where one stands depends on where one sits." is appropriate in determining who likes or dislikes SOPA. Who is in favor of SOPA? Content creators, such as the movie industry.

Who is against SOPA? Content providers (distributors of content), such as YouTube and Google, and civil libertarians. There are exceptions to these claims, but by-and-large that is the way the pie has been cut.

I have read numerous comments from people who support or oppose the bill. As usual, many of the comments about H.R. 3261 are erroneous assumptions or outright falsehoods. I say "as usual" because I found the same situation pertained to the important and controversial health care and financial reform bills (documented in other reports on my blog).

The remainder of Report Two is organized as follows: **The Doctrine of Fair Use Summary of SOPA A General Assessment of the Bill Sloth on Both the Pro and Con Sides Who is affected by SOPA? Summary** 

#### The Doctrine of Fair Use

Before delving into the details of SOPA, it will be helpful to know about the laws dealing with fair use.<sup>1</sup>

Fair use is an exception to the right granted by copyright law to the author of a creative work. It is a doctrine that permits limited use of copyrighted material without acquiring permission from the rights holders.

I am grateful for the fair use laws. When I began writing for the public and receiving income from my publishers, the fair use doctrine was not clearly defined. My publishers informed me I had to submit a "permission to use" request for anything in my writings that was sourced from others' works. Fortunately, my first few books dealt with subjects in which I had become familiar while serving as a Communications Officer in the U.S. Navy.

Nonetheless, I spent many hours filling-in request forms, along with cover letters explaining why I wanted to use each source. I spent almost as much time creating these requests as I did in writing the book. To make matters worse, I often received no reply or a reply might arrive several months after I had submitted the request. These delays and lack of responses had a severe effect on the process of creating coherent text. The procedure was inefficient and time consuming.

The laws on fair use that have evolved over the past few decades state that limited use of others' work is permitted if the use "...fulfills the intention of copyright law to stimulate creativity for the enrichment of the general public, or whether it aims to only 'supersede the objects' of the original for reasons of personal profit." Fair use is decided on a case-by-case basis, but the less used, the better the chance of being classified as fair use.

<sup>&</sup>lt;sup>1</sup> Wikipedia, key-in <Fair Use>. Text has been altered for readability and brevity.

Another deciding factor "...measures the effect that the allegedly infringing use has had on the copyright owner's ability to exploit his or her original work. The court not only investigates whether the defendant's specific use of the work has significantly harmed the copyright owner's market, but also whether such uses in general, if widespread, would harm the potential market of the original."

This last issue is the major factor that is sending content creators, providers, and pirates to their lawyers' offices.

Given the doctrine of fair use, and after having studied SOPA, the remainder of this report segment summarizes SOPA and offers a general assessment of the bill. As we traverse this subject, fair use will come into play several times.

#### **Summary of SOPA**

The Department of Justice can take indirect actions against a *foreign* Website and/or a person operating the foreign site by taking direct actions on a U.S. site that interconnects with this foreign site. Most of the bill's statements about this action are documented in Section 102 of the bill. SOPA has little to say about U.S. sites, unless they interoperate with a foreign site.

This site and/or person can be accused by either the Attorney General or a copyright holder of an alleged infringement. The bill states a U.S site is "subject to seizure" if the site is participating in illegal activities with a foreign site. My legal friends tell me "subject to seizure" can range from immediately taking-away something (such as a drug dealer's car) to putting someone on notice that an asset might be seized (such as a Website).

I will address this "subject to seizure" in more detail later, as it is one of the key parts of SOPA coming under fire, and one that has created confusion.

After determining that a foreign site is infringing (by what means is not defined), the Attorney General sends a notice "of the alleged violation" to the site. Next, "the court may issue" various kinds of orders and injunctions to the foreign infringing site (if it can find it!). Regardless of finding or not finding the alleged pirate, a copy of the order is sent to an associated U.S. site, or sites. (*How this is determined is not described.*) Websites such as search engines, payment systems, and Ad sites can be notified to take actions to block their interactions with the alleged offender.

After receiving a copy of the court order, a U.S. site would have to suspend doing business with the foreign site. (If a copyright holder makes the claim that led to the order, the site is allowed to make a counter claim.) If a U.S. site that is tied to the alleged foreign pirate can demonstrate it does not have the technical means to comply with the order (a mom and pop site), it can be granted relief from these requirements.

No liability is incurred by a U.S. site (such as search engines, ad networks, and payment systems) that complies with the order or takes voluntary actions to cut ties with the infringing party.

The bill contains a section (103) that defines the procedures for the cessation and/or the prevention of a U.S. site from funding sites or providing advertising support for sites dedicated to the theft of U.S. property. This section is similar in its details to section 102, so I will not elaborate further.

#### A General Assessment of the Bill

As you know, I favor measures to stop online piracy, both from a personal perspective of a person who writes as well as a person who appreciates the value of intellectual property rights. This report began with the *USA TODAY* article that sums-up the seriousness and magnitude of the problem.

Without question, SOPA is designed to protect the works of content creators. My major concern with the bill is that, as presently written, it grants the United States Government extensive powers to intervene in America's commerce and into the personal lives of its citizens. I value my intellectual property rights, but not if they come at the expense of my civil liberties.

I began reading the bill as a neutral party, but empathetic with what I understood it to be: Stopping online piracy. As I read the document, thoughts emerged that I jotted on the sides of the pages of my (legally pilfered copy): "very government-centric"... "Uncle makes all decisions" ... "Govt. could abuse easily" ... "Uncle Sam could become Big Brother of the Net...if abused."

I came away from reading this bill thinking SOPA gives too much freedom to the Department of Justice for controlling Internet sites. As such, I began to understand the critics' comments about the "Orwellian" overtones. At first, when I read these chants, I thought, *more libertarian malcontents*.

Now, I am not so sure. But I also know the problems---which I hope to clarify in the remainder of these reports---are of great magnitude and complexity.

To summarize my thoughts, the bill:

- is well-intentioned in protecting the intellectual property rights of U.S. citizens and will do so in many instances,
- is ambiguous in defining "subject to seizure" in relation to conventional, often drawn-out notices and court orders,
- gives Uncle Sam solitary authority to determine if, how, and why an Internet site is violating copyright law; no input is required from anyone else, no trials, no transparency,
- allows the federal government to unilaterally direct an Internet site to cease communicating with a foreign site; if Uncle is mistaken and the two sites have legal agreements, the U.S. site might be violating other laws to conform to an incorrect court order,

- does not give a site sufficient time to alter its systems to comply with a court order to cut ties to another site,
- does not take into account, nor explain how a "subject to seizure" action---if later deemed incorrect, will allow the now-defunct site to be made whole again,
- implies the government has the power (because of the lack of transparency) to determine if content is a violation of copyright law or a violation of a politician's views on non-copyright issues, such as x-rated movies or prayer-in-schools. To be fair, the First Amendment is appropriately cited as the overriding law. But topically-written legislation can be misused to bend laws to an existing political climate in Washington,
- provides too many details on how a site must use certain Internet tools to satisfy a court order to cut ties to another site.

One of my friends, an attorney, holds the view that SOPA requires an Internet site to become the enforcer of law. I do not hold this view. SOPA makes sure the Attorney General is the enforcer. If SOPA required an Internet site to perform ongoing *monitoring* of traffic to detect potential pirates, I would agree with my friend.

# SOPA is quite specific about this matter. It stipulates a "payment network provider" and an "Internet advertising service" have "No duty to monitor" for pirating.

SOPA does not mention other Internet sites, such as a conventional Internet Service Provider (ISP). SOPA should include a statement that *no* Internet site will be required to monitor for pirated traffic, not just payment and ad systems.

However, the issue of voluntarily monitoring for illegal traffic is quite another matter and one taken-up later in these reports.

#### Sloth on Both the Pro and Con Sides

The issue of requiring a site to monitor traffic has been butchered by many of SOPA's critics. Some claim just the opposite of these facts. I still cannot get over how frequently people make outright false claims about a piece of legislation, as if they have read it!

The problem comes from more than just mindless bloggers and clueless email spammers. This practice reaches into respected media. *TIME* cites several "cons" about SOPA, some of which are incorrect, but the newsweekly does not bother to tell its readers the claims are bogus:<sup>2</sup>

(The bills) would ensnare small sites that have done nothing wrong in expensive legal battles. Larger sites like YouTube and Facebook would have to begin burdensome new monitoring of the users' activities or risk legal action because a few teenage girls posted a video of themselves bopping around to a Katy Perry song.

<sup>&</sup>lt;sup>2</sup> *Time*, January 30, 2012, 12.

<sup>©</sup>Uyless Black 2012

Fantastic. In one paragraph this magazine has implied three falsehoods to be truths: (1) Small sites can be exempted from SOPA's sword. (2) SOPA specifically states sites such as YouTube and Facebook would be required to *block* traffic, which is quite different from *monitoring users' activities*. (See next two reports for more details. For now, blocking means looking at addresses; monitoring users' activities means examining user content.) (3) Fair use (and inconsequential copying doctrine) protects teenie-boppers from going to jail if they inculcate themselves into Katy Perry's video streams.

A reasonable approach is what Bill Maher took on this HBO show last week. He said and I paraphrase, "I haven't read the bill...I suspect no one else has (he's close to the target), but I hear it goes after thieves."

When Mr. Mahler brought up the subject of SOPA, there was a muted volume of boos heard from the audience. What did these learned folks know that led them to express their disapproval of SOPA? Nothing but what they had been fed by other people who had also very likely not read the bill either.<sup>3</sup>

#### Who is affected by SOPA?

The wording of SOPA is such that the Attorney General can go after any entity that has a domain name, which means just about every entity on the Internet. Web-based sites and email systems do not operate without a domain name (see reports one and three for an explanation of domain names).<sup>4</sup>

By using domain names in its identification of an Internet site, SOPA empowers Uncle Sam with a policing tool of immense power and granularity, a potential Big Brother filter:

Uncle can go after GoDaddy.com for GoDaddy hosting Uyless Black to distribute illegal PDF files on my site named Blog.UylessBlack.com: A macro filter. Alternately, Uncle can go after me directly at my blog site of Blog.UylessBlack.com and not bother GoDaddy: A micro filter.

Thus, SOPA's filter can include a site with many users, such as GoDaddy.com, or a site hosted by GoDaddy, such as my blog.

<sup>&</sup>lt;sup>3</sup> I am not suggesting each of us read thousands of pages of legalized text about health care, financial reform, or copyright law. It would take too much time away from making a living and taking care of our personal lives. But someone must. Let's start with the lawmakers. Few of them know the contents of the laws on which they vote. They rely on their aides, or on K Street lobbyists to concoct the details. Even if they have the inclination to read, say, seventy-eight pages of arcane text, they cannot. The task interferes with their efforts of finding money to get reelected. Some say over half their time is spent in raising funds for staying in office.

Then, let's pass the baton to the news media. As dispassionate journalists, they bear the burden of objectivity. FOX news? MSNBC? Pass the responsibility baton to someone else.

Where does it land? In no one's hands. No one is responsible. We are all protected by the shear mass of our anonymity.

<sup>&</sup>lt;sup>4</sup> For the Internet literate: on the other hand, many Internet entities need not have a domain name associated with them. Some systems use a direct address (an IP address) without a domain name. But this aspect of the Internet is of no interest to SOPA, as pirates operate with domain names.

If you support SOPA, you will stand in awe of this power. If you do not support SOPA, you will stand in awe of this power.

#### Summary

My list contains mostly negative assessments of SOPA. In fairness, and explained in the remainder of these reports, SOPA is attempting to deal with an immensely complex problem that interplays technology, legal rights, politics, commerce, and social issues.

If you are in favor of the slogan, "Information is free!" in your mind SOPA should be scrapped. I am not a proponent of this slogan. Some sort of SOPA-like legislation is needed, regardless of what file sharing sites and copyright opponents contend.

Later, I will attempt to come up with some answers. Subsequent reports go into more details about SOPA.

#### The Stop Online Piracy Act (SOPA) Bill Report Three: A Preview of Things to Come?

#### February 2, 2012

Hello from Your on the Street Reporter. I made the claim in Report Two that SOPA gives the United States Government extensive powers to shut-down an Internet site or sites. It turns out that SOPA is not needed. Last week, an Internet site named Megaupload.com was closed down, as evidenced by this notice that appeared on my screen when I tried to access the site:



Why bother with SOPA? It is superfluous. Uncle Sam can do it anyway. In fact, after having read SOPA, the act places more harnesses on the government than has been shown with Uncle's seizure of Megaupload.

To make certain it is clear where I have placed my stake on online piracy: The stake should be driven into the operations of intellectual property pirates. But the stake must be driven (filtered) into *those* pirates, not the pirates' innocent customers. This filtering did not happen with the seizure of Megaupload.com. As I warned in Report Two, the United States' heavy hand overplayed itself, to the detriment of many non-pirating users of Megaupload's file sharing and hosting sites.

Taking-down the site of Megaupload.com without regard to the blameless users of this site is akin to closing up an entire apartment building because one tenant might be breaking the law:

#### Upcoming raid on an apartment building, where illegal drugs are being made in one of the apartments:

- Uncle Sam Agent # 1: "We got'um; pirates of legal opiates! Let's move in and take possession."
- Uncle Sam Agent # 2: "Right. I'll block access to the front door. You cover the windows. They won't get away."
- -# 1: "Front door! See those agents over there? We're blocking the entire apartment building. No one can get into their apartments until this case is closed. Not only that, we're evicting everyone."
- # 2: "What? This apartment building has 180 million individual apartments. You're seizing a building, just because one apartment dweller is breaking the law? Waiting for the justice system to fix things will take months, maybe years. In the meantime, innocent bystanders are denied access to their private property. Are those your intentions?"

-#1: "Yep."

Weird? Yes, but that is what happened with the Megaupload.com seizure.

Granted, many of the180 million subscribers to Megaupload might have been breaking the law. But to what extent? How many of the subscribers were thieves? How many were engaged in commercial piracy as opposed to downloading one copy of "Achy, Breaky Heart" to a heartthrob?

The U.S. Government is going after some very bad actors. I'm grateful. But Uncle will not be successful in this effort if he does not find a way to avoid casting his net over millions of guiltless citizens.

#### Grab'um by their Files

My made-up example of being denied one's residence---as serious as it is---is not as grave as some situations in which a person is denied access to his or her information, often the person's sole way of making a living and paying for that very residence.

To illustrate this point, unless I have no other choice, I do not place my data onto any computing cloud or file sharing site. I do my own backups. Nonetheless, if my Web and blog host sites are seized because another user of this site was engaged in pirating, I will lose a vital part of my financial livelihood, as well as an important part of my personal life.

Several years ago before I left the profession of information technology, I coined a term; one I borrowed from General George Patton. The General said, "Grab'um by the balls, and their hearts and minds will follow!"

One of the departments under my watch while I worked at the Federal Reserve Board was the Data Base Management Section. We had the job of taking care of much of the Federal Reserve's data. I mentioned to one of my team leaders a spin-off of Patton's cliché, "Grab'um by their data bases and their software will follow."(Propeller heads will understand.)

For this discussion, I modify both sayings---asking leeway from the female readers, "Grab'um by their files and you've got'um by the balls."

That is exactly what happened to millions of users whose files were denied them by the seizure of Megaupload:<sup>1</sup>

When the U.S. Department of Justice shut down online file-storage company Megaupload Ltd. in one of the largest criminal copyright cases ever, it also cut off legitimate customers like Suzanne Barbieri.

The FBI's shutdown of piracy site Megaupload has kicked off legitimate users who were storing files in the cloud....

The London-based musician, who performs under the name Beloved Aunt, had used Megaupload since 2009 to send her songs to her producers and record label. She even used it to store the digital versions of her work that she gave away as freebie downloads.

The U.S. government claims Megaupload's data storage operations are only "a cover story to conduct large-scale theft of copyrighted material,"<sup>2</sup> that the company itself automatically removed files that were not widely-used for downloading. If we are to believe Ms. Barbieri, the U.S. Government claim is incorrect.

According to Uncle Sam, due process was taken. Megaupload was seized lawfully. How about Ms. Barbieri *and millions of other users*? They were denied due process and given no notice. Now, many of them do not have access to their computer-based files. I hope you are disturbed with Uncle's wide net, cast over (possibly you or me) without due process. I am.

#### **Brother, Heal Thyself**

Naysayers of my concerns will say, "Uyless, you are ultimately responsible for your own data. Megaupload is not your data protector. Nor is any other computing cloud. Ms. Barbieri left her files and herself hanging-out in the wind. Besides, Megaupload informed its users, "...they assumed the risk of losing their files, should Megaupload shut down."

Point taken. As stated, I do not rely on anyone but myself for my files' security and availability. But file sharing sites and other clouds sell their products to users touting file security and availability as *major* features of the service.

In addition, as technically adroit as I may be, I cannot act as a backup to GoDaddy.com's proprietary files and software that support my Web and blog sites. The critics counter: Build

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<sup>&</sup>lt;sup>1</sup>http://online.wsj.com/article/SB10001424052970203806504577181201072864644.html?mod=business\_newsree <sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Ibid.

your own web and blog sites! Sure, and while I am at it, I'll put together my own car, just in case Toyota's plant in Japan slips beneath a tidal wave.<sup>4</sup>

A point is reached in our complex lives in which we must be dependent on others and have the assurance we are in safe hands. Users of file sharing sites and other computing clouds reasonably fall into this population.

I urge the United States Government to take these facts of modern life into account in its otherwise laudatory efforts to prevent a Chinese plagiarist from putting his name on one of my books, selling it, and not sending me a check.

I make light, but it is not all that funny.

#### Relatively Speaking, SOPA is a Pussycat

Take a look at page 4 of Report Two. With all its shortcomings, SOPA contains extensive language about due process. If SOPA can be modified to (a) clarify "subject to seizure." (b) get Domain Name Service (DNS) out of the picture (described in Report Four), (d) be more explicit about a concept called "deep packet inspection" (also described in Report Four), and (d) narrow Uncle's casting net, it might be salvageable.

#### **Solutions and Inherent Restrictions**

I have mentioned that the power of digital technology, with Internet's ability to send digital copies of music, books, and video to millions of people will probably make the controlling of piracy a pipe-dream. Nonetheless, in subsequent reports, I will suggest some actions that will improve on what now exists.

The U.S. government must come to grips with this piracy before it becomes too enamored with its wide net. Internet Website customers depend on Websites for their very livelihood. Taking down a widely-used site without due process to the users of this site is not only (likely) illegal, it is morally inexcusable.

<sup>&</sup>lt;sup>4</sup> See Appendix A in this report for a specific example of this dependency; of reliance on Websites for both commercial success and personal satisfaction.

#### **Appendix A: Example of Dependency on Internet Computing Clouds**

As mentioned, GoDaddy.com hosts my Web and blog sites. As far as I know, GoDaddy is not a pirate, nor is this huge site a "cyberlocker" for illegal files to be exchanged between people who think everything in the world should be free except for the things they do to earn a buck.

GoDaddy is a fine supporter of my Web and blog. (I am not being paid for this endorsement.)

To provide an example of (a) how dependent even a computer-literate person can be on a Web site, and (b) how careful the government must be in its netcasting operations, my blog begins with:

## Welcome to the Uyless Black Web site at <u>UylessBlack.com</u> and this associated blog. Click on any of the <u>blue buttons</u> below to obtain free downloads of those that are on-line.

I created this salutation by simply keying in the text shown above. However, in order for my typing to be displayed on a computer screen, GoDaddy's technicians (and powerful software) created this code:

<span style="font-size: 13px;"><span style="color: #000000;"><span style="font-size: 12px;"><span style="font-size: 14px;"></span><span style

This code is only for two sentences and a few housekeeping tasks. My current blog requires GoDaddy's systems to create 16 pages of code.

Could Uyless Black write this code? With some brush-up reading, yes. Does Uyless Black want to write this code? No. This time-consuming task would take me away from activities such as writing this report.

The same idea pertains to Suzanne Barbieri. Why should she not accept that a Web vendor is taking care of her?

We place this trust into our everyday transactions with our bank, our grocery store, our dry cleaners. Why not an Internet site? Do we keep a backup of our shirt, just in case the dry cleaners lose our shirt? Backups of lettuce? Of our savings at Wells Fargo? Yet suddenly, Uncle informs us that we are responsible for keeping duplicate shirts, heads of lettuce, and extra money in our possession, just in case Sam's minions seize our shirts, vegetables, and funds.

Am I stretching the point? Maybe so, but the comparison is apt. Let me know your thoughts.

#### **The Stop Online Piracy Act (SOPA) Bill Report Four: Comments about SOPA, Pro and Con**<sup>1</sup>

#### February 6, 2012

Hello from Your on the Street Reporter. This report provides a snapshot of comments being made about SOPA. In providing these examples (pro and con), we go into more detail about the bill, and learn more about why it is so controversial.

In order to understand some of the most controversial aspects of SOPA and online privacy in general, we take two diversions into Propeller Head Land. I recognize this material is not Danielle Steele stuff, but at least a general understanding of several Internet concepts will help in understanding the furor about SOPA and related legislation. I will keep the explanations in a general context and will be happy to answer any questions you may have about them.

#### The Domain Name System (DNS).

The first subject deals with the Domain Name System (DNS). When you key-in an email "TO" address identifying, say, BlacksStreets@aol.com, it is used to route the email to my computer. This identifier is an example of a *domain name* and is based on the DNS Internet standards.

However, this "TO" identifier is not really an address. For it to be called an address, it would have to have location significance. After all, BlacksStreets' computer could be located anywhere on earth; perhaps using AOL from a dial-in line in Beijing, China, which I did a few years ago.

Through DNS, an AOL server (likely but not necessarily in Beijing) informed other DNS severs in various parts of the world that my computer could be reached via the Beijing AOL site. The system informed anyone who was interested how my computer could receive their messages.

It's an amazing system. I have been studying and using DNS for many years, and I am still impressed with how the Internet operates with what is essentially a world-wide electronic Yellow Page; one capable of maintaining nearly instantaneous address and routing information on anyone who uses the Net.

But exactly how is a routable address to my computer obtained? By the Domain Name System software. Its job is to translate BlacksStreets@aol.com to an address that is used to transfer the email to my computer.

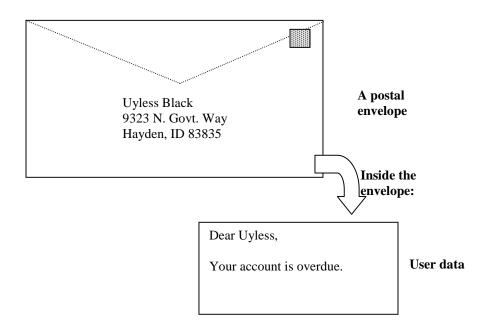
This address is called an IP address. You've likely seen one on your screen. It appears as a set of numbers, such as 192.44.435.234. It would be a big hassle if we had to key-in an IP address. So, we simply key-in the domain name and the software in our computer, as well as the software at AOL (and sites called DNS servers) provide a translation to an IP address, all in a matter of fractions of a second.

<sup>&</sup>lt;sup>1</sup> Scores of articles, blogs, videos, and emails are available online about SOPA. Unless otherwise cited, I use Wikipedia for both pro and con comments on the bill. *Wikipedia*, Key in <SOPA>.

Your computer software "remembers" the sites you access frequently. This information is stored in a table that contains the domain names you use and their associated IP addresses. If your machine does not have this table, your Internet Service Provider (ISP), such as AOL operates a local (non-authoritative) DNS server to provide the translation. If AOL does not have the domain name/IP address match stored, it obtains this information from one of several authoritative DNS servers located in various parts of the world.

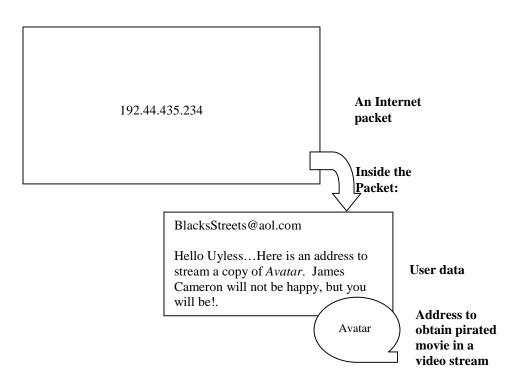
These authoritative DNS servers are at the heart of the Internet and partly explain why the Net functions so efficiently. Agreements in Internet standards set the procedures for Internet Service Providers such as AOL to exchange information with these servers to keep them (and AOL's local servers) up-to-date. Because of their importance, any legislation that deals with government influence on these servers is not just a big deal; it's a huge deal.

Let's return to DNS itself, and look at its elegant conceptual simplicity. Think of DNS this way by using a postal envelope analogy:



In the language of the Internet, "Uyless Black" is a domain name. The "9323 N. Govt. Way, Hayden, ID 83835" is an IP address. The "data" inside the envelope is user data. It is not necessary to open the envelope to determine how to route the letter to Uyless. Just look at the envelope.

Viewing the setup from the perspective of an Internet envelope, usually called an IP packet, here is another view:



In some instances, the pirated material is directly attached to the user's email. However, because of the number of images contained in a video playback, the video is often "streamed" to the user at a few (thousand) packets at a time from a Website. Whatever the case, in order to know the nature of the traffic, the data inside the packet envelope must be examined.

This example is a simplification of the relationships of DNS to IP addresses and of the user data (and attachments). Additional identifiers reside inside the packet to further identify the nature of user traffic, discussed next (with more detail in the following tutorial).

#### A Domain Name is not a URL

Domain names are usually appended with other identifiers to provide more information about the type of traffic in the user data field in the IP packet. This ID scheme also operates under Internet standards, collectively called the Uniform Resource Locator (URL).

For this discussion, it is important to note that a domain name is *not* a URL; it is only part of a URL. For example, consider this URL (and used as a source later):

http://news.cnet.com/8301-31921\_3-57328045-281/sopas-latest-threat-ip-blocking-privacy-busting-packet-inspection/

The "news.cnet.com" part of this URL is the domain name, which is translated into an IP address in order for the traffic to reach the proper end site. The other entries of this URL identify specific aspects of user traffic; say, a page at a Website. Thus, the domain name identifies an Internet site, whereas the URL (may) identify attributes of the traffic inside the IP envelope. This aspect of the Internet identifiers is a hot point in the SOPA debate. Please stick with me on this subject, as I will explain why shortly.

#### **Deep Packet Inspection**

Here is the second tutorial. It's on "deep packet inspection." When traffic is sent through the Internet, each packet is examined in order to route it to its intended destination. An IP address in the packet---one inserted by Internet software (and invisible to us) identifies this final target.

Let's call this operation "shallow packet inspection." Using the figures above, the only identifier examined is the IP address and none of the information inside the packet envelope.<sup>2</sup>

Also, I define shallow packet inspection as one that examines another field in the packet: the domain name. But keep in mind that a domain name only identifies a site such as my computer or a Web site. It does not identify what is stored on my computer or what is stored at the Web site. Thus, the examination of the domain name itself does not entail the examination of user data. As explained later, this important point has either been overlooked or ignored by SOPA's critics.

With deep packet inspection, other contents (fields) of the packets are examined. Consulting the figures again, the inspection looks inside the packet envelope. One of these fields contains a standardized ID that identifies the type of traffic in the user data field, such as video or email. Another field identifies the various Internet protocols being used to help in the delivery of this traffic.

By examining these other fields, it is possible *to learn a lot* about the end-user's data. Because these IDs are of a certain (standardized) value, their detection can easily trigger other software to examine the user data itself, which I call "packet wire-tapping."

Deep packet inspection would make James Cameron happy, because such monitoring could reveal if someone were downloading pirated copies of *Avatar*.

Let's now go into more details about SOPA. I'll try to keep the geek jargon to a minimum.

#### Pro and Con Comments about SOPA

**Con:** Earlier, I cited a paragraph in SOPA that grants a "subject to seizure" capability to the Attorney General. I also described how notices and court orders must be sent to the sites under investigation and that these U.S. sites must be given the opportunity to cut ties with the alleged pirate. I am no legal expert, but I found these two parts of the bill to be confusing and contradictory. This *subject to seizure* term is a big point of contention for those who oppose SOPA.

As mentioned in an earlier report, *subject to seizure* can mean "I'm seizing!" or it can mean I have the intent to seize, depending on the behavior of the Website. SOPA is not clear on this

<sup>&</sup>lt;sup>2</sup> For the technically-inclined reader, it is not necessary to discuss labels and virtual circuit IDs. They are not part of the SOPA controversy.

distinction and the waters are further muddied by clauses in the bill that define procedures for issuing notices and court orders---which imply there will be no drug-dealer type seizures.

This part of the bill needs cleaning-up and clarification.

**Con**: "Opponents say that it (SOPA) will violate the First Amendment, is Internet censorship, will cripple the Internet, and will threaten whistle-blowing and other free speech actions."

**Comment:** Regarding the First Amendment: Page two of the bill contains this clause: "Nothing in the Act shall be construed to impose a prior restraint on free speech protected under the 1<sup>st</sup> Amendment to the Constitution."

Two clauses in the bill authorize the Attorney General to issue restraining orders, "...to cease and desist from undertaking any further actions as an Internet site dedicated to the theft of U.S. property." This action can come about after the Department of Justice has notified an Internet site of an alleged piracy, and the site has had a chance to "take technically feasible and reasonable measures designed to prevent access by its subscribers (to an infringing site)."

Regarding the word "dedicated." I believe the drafters of the SOPA language have placed this word in the bill to go after professional content pirates. The bill itself is oriented toward the big fish: foreign sites that market intellectual goods for commercial purposes; not the small fish that occasionally copy media for private use and for use among a limited group of users.

A site has only five days to comply with the order. In addition, SOPA allows the government to issue a temporary restraining order (TRO) against a site, which means there is no advance notice given to the adverse party, and this party cannot challenge the TRO. (Obviously, because it does not know about it.)<sup>3</sup>

The bill states any site that is interconnected with the alleged pirate, "shall not be required...other than as directed (to comply) to modify its network, software, systems, or facilities." This clause shows the woeful lack of understanding of the complexity of an Internet site. It should be changed.

Regarding Internet censorship: I could not find specific paragraphs in the bill that place a restriction on Internet users expressing their own views about any matter. The bill does place restrictions on an Internet user expressing someone else's copyrighted "views" for commercial gain.

However, by denying innocent Internet users their own files---without due process---SOPA enables implicit censorship.

The critics state SOPA gives Uncle Sam arbitrary powers to determine the nature of information; to declare it illegal when it might not be. They state SOPA gives Uncle a huge Big Brother

<sup>&</sup>lt;sup>3</sup> The government can also issue a preliminary injunction, which requires giving the Internet site a notice and which also allows the site to argue against the preliminary injunction. Finally, Uncle can also issue an injunction, which is of a more permanent restriction.

weapon that could be misused to erode America's civil liberties. Without question, SOPA is *government-centric*, a paradigm in opposition to the Internet

Regarding crippling the Internet: The bill is explicit in describing *how* the violators of U.S. copyright laws will be denied use of payment mechanisms and how the use of the Domain Name System (DNS) will be used for this denial. Perhaps this fact is the reason for this statement of crippling the Internet. The denial of service to an Internet site (or sites) will not cripple the Internet, which is a distributed network designed to function if Internet sites are inoperable. Anyway, I find these technical details about DNS to be one of the more exasperating aspects of SOPA.

Regarding whistle-blowing: Nothing in the bill prevents a person from using a whistle to tell on someone else, as long as the whistle is not copyright-protected.

Regarding other free speech actions: Nothing in the bill explicitly restricts free speech, as long as it is your own speech. You may disagree with me on this point, in relation to the "subject to seizure" and the right to issue temporary restraining orders and injunctions. If the government uses SOPA as it did with Megaupload.com, then I agree with the critics' point.

As well, if the party is judged as a "notorious" pirate (notorious is not defined, so it's up to Uncle Sam to say if a pirate is notorious or not), the bill allows the Attorney General to move forward within U.S. boundaries to curtail or stop the pirate's pilfering by possibly closing down a Web site.

**Pro:** "Proponents of the bill say it protects the intellectual market and corresponding industry, jobs and revenue, and is necessary to bolster enforcement of copyright laws."

**Comment:** Who can disagree? I have not come across any refutations of this claim except from people who are against copyright protection in general. However, SOPA gives the U.S. government the leverage (unto itself, without any adversarial refutations) to determine who is a copyright violator (without recourse from the alleged violator), to issue notices and orders, to even seize a site without a trial.

I like my content being protected. I like my civil rights being protected even more. SOPA is disturbingly asymmetrical toward Uncle Sam and away from Joe Citizen.

**Con:** I came across many comments that state SOPA is well-intentioned, but it has been too heavily influenced by the music industry and other content copyright holders.<sup>4</sup>

**Comment:** The bill does extend current copyright law further into the digital Internet world. It also modifies some of the copyright law to make it more specific regarding musical and motion picture works.

<sup>&</sup>lt;sup>4</sup> http://tech.fortune.cnn.org/archives/6248.

**Con:** Several comments deal with concerns that citizens in the United States will suffer---if not the loss of free speech rights---the loss of the flexibility and freedom that comes with a relatively unregulated Internet.

**Comment:** After reading SOPA (which I recommend you put on your nightstand if you have trouble sleeping), it is evident most of the bill is focused on foreign sites. It appears the lawmakers are looking for ways to shut-down foreign pirates. I applaud this sentiment.

While clapping my hands, I nervously shuffle my feet. On paper, SOPA comes across as a dedicated commitment to protect the intellectual property rights of, say, Uyless Black and his writings. It was revealing and telling to come across numerous paragraphs of SOPA that modify current copyright law by establishing ways of protecting musical and motion picture content. Not one word in SOPA deals with "book" or "literary."

This omission is a personal annoyance. On a less private take on the bill: SOPA seeks to protect U.S. citizens' intellectual property rights. Again, I clap my hands. In so-doing, SOPA moves more power to the federal government. Again, I nervously shuffle my feet

**Con:** SOPA states that any site complying with the SOPA intent of not allowing the illegal proliferation of copyrighted material is immune from liability as long as it cuts ties to the offending sites. One problem with SOPA is that the act tells a Web content provider how to do it, but the major problem is giving the government these powers without any checks, balances, and transparency

**Con:** On *Time*'s Techland blog, "Imagine if the U.K. created a blacklist of American newspapers that its courts found violated celebrities' privacy? Or what if France blocked American sites it believed contained hate speech?" Next, I came across another quote courtesy from the Center for Democracy and Technology, "If SOPA and PIPA are enacted, the US government must be prepared for other governments to follow suit…whether restricting hate speech, insults to public officials, or political dissent."

**Comment:** I came across these statements before I studied SOPA. I thought: *What are the people at these institutions smoking?* Now, I am not so inclined to think their opinions as complete drivel, but statements from uninformed people who should not be making such comments.

Why? Because these statements are unnecessarily inflammatory. Such avowals mislead the general public and create pointless confusion and anger about Congressional legislation. They take a flawed but generally well-intentioned document and poison it by using words that automatically turn-on a person's mental alarm system: blacklist, violation of privacy, hate speech, insults.

Joe and Josephine citizen, sitting in their living room watching TV, do not know a hill-of-beans about SOPA. They only know what they are told to know via the tube. A person appears on the screen and says to Joe and Josephine, "Imagine if the U.K. created a blacklist of American

newspapers that its courts found violated celebrities' privacy? Or what if France blocked American sites it believed contained hate speech?"

Joe turns to Josephine and declares, "SOPA is downright scary." And that's how Bill Maher's HBO audience came to boo the mere uttering of "SOPA."

SOPA says nothing about privacy, hate speech, insults, or political dissent. That is, unless you steal someone's copyrighted privacy content, copyrighted hate speech, copyrighted insults, or copyrighted political dissent and use it for commercial purposes. Then SOPA goes after your---excuse the French---thieving ass. Furthermore, as a content creator, I would openly embrace other governments protecting my intellectual work.

#### Last Example

One last point about these kinds of ill-founded comments: The problems revolving around intellectual property rights in relation to digital technology and Internet multicasting are difficult enough without careless statements that sully the debate.

In this last example, I use the laws of fair play to copy parts of a news article verbatim (as a "claim," and insert my comments. I go into this level of detail for a broader motive than clarifying SOPA: To again caution my readers about taking for granted what appears to factual news.<sup>5</sup>

The journalist's work cited here is from the chief political correspondent for CNET. He previously was a reporter for *Time* and the Washington bureau chief for *Wired*.

**Claim:** A little-noticed portion of a controversial House of Representatives copyright bill could require Internet providers to monitor customers' traffic and block the addresses of Websites suspected of copyright infringement, a significant expansion of requirements in an earlier version of the bill.

**Comment**: First, the bill states that an Internet site has no monitoring requirements unless soordered by the government. Second, the harm done with this blanket statement is that an unwary reader could easily assume his mail will be read. SOPA does not contain any clauses about the examination of either the type of user traffic in the packet or the user traffic itself. Using the post office as an example, SOPA requires an Internet site to monitor the addresses on the front of the envelope (shallow packet inspection). It says nothing about looking inside the envelope at user traffic (deep packet inspection).

**Claim:** "It would cover IP blocking," says Markham Erickson, head of NetCoalition, which opposes SOPA and counts Amazon.com, Google, eBay, and Yahoo as members. "I think it contemplates deep packet inspection" as well, he said.

<sup>&</sup>lt;sup>5</sup> http://news.cnet.com/8301-31921\_3-57328045-281/sopas-latest-threat-ip-blocking-privacy-busting-packet-inspection/

**Comment:** I'm not sure how a Congressional bill can "contemplate" anything. Anyway, SOPA does cover IP address blocking, based on the domain name pertaining to that address. The second statement is not just incorrect it contradicts what the bill explicitly states. Deep packet inspection goes far beyond that of blocking an IP address. The news article is inaccurate about this critical and highly sensitive issue.

**Claim:** An aide to the House Judiciary committee -- chaired by Rep. Lamar Smith (R-Tex.), SOPA's principal sponsor -- did not dispute that IP address blocking and deep packet inspection could be required. (**Comment**: Even the bill's sponsor is ill-informed!) It would be up to a judge to determine the nature of the court order that would be needed to block the site, the aide told CNET this afternoon. (**Comment**: SOPA defines how the blocking would occur, not a judge. And blocking would be done on domain names and associated IP addresses, not on type of user traffic.)

Claim: Deep packet inspection is the only way to block data from specific Web pages, or URLs.

**Comment:** Blocking data from specific Web pages would require the examination of all the contents of the complete URL.

But SOPA does not require anyone to block traffic to a specific Web page, only to a specific Web site, which can be discovered by a shallow packet inspection of the IP address. This subject is very controversial, so I examined SOPA carefully in an attempt to find anything that dealt with denying service of a Web page basis. I could find no clauses dealing with user data, only regulations pertaining to IP addresses and DNS domain names. Not one word about denying service based on URLs.

SOPA only defines blocking to be done by a shallow packet inspection. By correlating a domain name to an IP address, all that is needed is to examine the IP address, a procedure performed anyway to properly route the packet to its destination. Certainly, the Domain Name System would be needed to map the domain name part of the URL to an IP address. However, even here, the critics are off-base. SOPA states that the U.S. Government would inform an Internet site about the alleged pirate. In so-doing, the site would be doing no monitoring until it was ordered to do so. It is not required to do any monitoring whatsoever until it is so-informed by the Government. Thereafter, the monitoring occurs based on domain names and/or IP addresses, but not the complete URL.

To emphasize, this level of monitoring by an Internet site occurs based on domain names and/or IP addresses, but not the complete URL, and therefore, not user traffic.

#### **Con: and Please Pay Attention**

So, SOPA does not require an Internet site to perform a deep packet inspection. Then, who is making the determination that the user traffic is illegal in the first place by doing this deep packet inspection? A discontented legal content creator, which is fine with me. Of more concern: the United States government becomes an Internet Big Brother. In the next report, one in which I offer some solutions, I return to this subject.

**Claim:** It also may raise new privacy concerns about SOPA because it relies on intercepting customers' Web browsing, analyzing the protocols to see what's going on, and reviewing the packets' contents. That looks a lot like wiretapping, and a bipartisan group of House members soundly condemned it when a company named NebuAd tried it in 2008.

**Comment:** Again, SOPA does rely on examining the IP address that is derived from a domain name. But the bill mentions the word *monitor* only four times. In all four citations, the word is used with this clause (which was discussed earlier): "*No duty to monitor*."

However, these clauses only pertain to a payment site, such as PayPal, or an advertisement site, such as YouTube (which I call a content provider in these reports). The bill is off-base in a major way here: It should levy responsibility for monitoring on the Internet site that deals with the content of the traffic. That would be the content provider, such as YouTube, not AOL, which is largely a conventional Internet Service Provider (ISP) and not concerned about user content. I'll make my case for this controversial recommendation in the next and final report.

SOPA mentions the word *block* twice. The text of the bill: (1) speaks of a "block of Internet Protocol addresses" as part of definition of a term, (2) states an Internet site will be offered immunity from any of SOPA's heavy hands if it goes about, "voluntarily blocking access to or ending financial affiliation" with an alleged pirate.

I believe this latter passage was placed in the bill to protect a blocking site (such as YouTube) from possible lawsuits by ceasing operations with an alleged pirate, if this alleged party ends-up being found not guilty.

Does SOPA condone deep packet inspection, say, as a carrot to Websites to perform monitoring of the type of traffic and the traffic itself? It does not, but I think the wording is too loose about this critical matter. Here is the full text from SOPA:

## SEC. 104. IMMUNITY FOR TAKING VOLUNTARY ACTION AGAINST SITES DEDICATED TO THEFT OF U.S. PROPERTY.

No cause of action shall lie in any Federal or State court or administrative agency against, no person may rely in any claim or cause of action against, and no liability for damages to any person shall be granted against, a service provider, payment network provider, Internet advertising service, advertiser, Internet search engine, domain name registry, or domain name registrar for taking any action described (Writer: as specified in the act and described in earlier reports) with respect to an Internet site, or otherwise voluntarily blocking access to or ending financial affiliation with an Internet site, in the reasonable belief that (1) the Internet site is a foreign infringing site or is an Internet site dedicated to theft of U.S. property; and the action is consistent with the entity's terms of service or other contractual rights.

Giving SOPA's critics some slack (and I am one of them), any SOPA-type bill must be more explicit about deep packet inspection and who does it...just as our justice system is explicit about wire-tapping.

That's it for now. Thanks for reading. And let's ask the people we count on to bring us the facts to be a bit more careful (ok, a lot more careful) about making sure they are indeed giving us the facts and not second-hand bombast.

#### The Stop Online Piracy Act (SOPA) Bill Report Five: Brother, Can You Spare My Dime?

#### February 8, 2012

Hello from Your on the Street Reporter. Before delving into this final report on SOPA, online privacy, and content piracy, let us give a hand to Bill Keller, a columnist for the *New York Times*. Mr. Keller wrote a report on the SOPA bill (February 5, 2012, OP-ED section). He also read what he wrote about! I place an exclamation point on the last sentence because he is the first reporter I have come across who did due diligence on the subject of his investigative report. I hope the man wins a Pulitzer if for nothing else than for his tenacity and honesty. By the way, his report is worth reading.

A point about definitions: I have been using the term *content provider* to identify Internet sites that furnish support for its customers to share files with each other, such as YouTube. I received an email suggesting the word *provider* implies the site provides the files, and not its customer. It's a valid point. I still like the term as it implies the site provides services for the exchange of content. Anyway, perhaps an equally descriptive term is *content distributer*.

#### **OPEN** (Note: this section was inserted in this report on February 9)

After finishing this report, with the intent to move on to other projects, I decided to download another Congressional bill. It is named OPEN for Online Protection and Enforcement of Digital Trade Act. It is at a rough draft stage, and I have begun to read it. I promised to have this final essay (Report Five) posted by February 9<sup>th</sup>.

I will review OPEN, and if I can meet my deadline, add a postscript at the end of this report. Issues such as SOPA, financial reform, and Medicare reform take on a life of their own. It's time to move on. So here is my first and only advertisement. Look for my new book at Amazon, and Barnes and Noble this spring: *The Nearly Perfect Storm: An American Financial and Social Failure*.

#### "Heads I Win, Tails You Lose"

A USA TODAY article had this to say about SOPA:<sup>1</sup> The bill would "…hurt sites such as YouTube, that host user-generated content." I use this quote to pose some hypothetical solutions to online piracy in this section of the report, followed by three non-hypothetical ideas to improve the current climate; maybe even solve the problems associated with online piracy and privacy. I look forward to your opinions about both sets of concepts.

The complaint in USA TODAY reflects the magnitude and difficulty of the problem. Let's use two industries to help with the analysis of this statement. For a basic landline service, the telephone company is a *service provider*. (I am not referring to a smart phone, but the basic telephone service.) It is neither a *content creator* (MGM, for example), nor a *content provider/distributer* (YouTube, for example).

<sup>&</sup>lt;sup>1</sup> Roger Yu, USA TODAY, January 19, 2011, A1.

The role of a service provider is quite different from a content provider. This specific service provider--- the telco (telephone company)---is responsible only for providing a pipe through which we place our content or the content of others. It also routes (switches) the traffic to the destination telephone.

This definition is an important distinction. This service provider does not know, and because of privacy laws, cannot know the contents---the conversation---taking place. It cannot wire tap on its own accord to examine the nature of the customer traffic. Nor does the telephone company charge---other than a flat rate or a usage rate---for the *nature* of the digital bits inside the pipe. It derives no revenue from the nature of the content.

America's copyright laws should not, and generally do not touch the telephone company's pipes or the telephone company. The laws, if need-be, go after the telephone customer, the user, that is, the content creator.

Let's turn to YouTube. (I prefer UTube, as I like the letter "U", but I'll go along with convention.) *This company relies on the specificity of its customer's content for its very existence*. It derives its income from supporting its customers' sharing files with others. By acting as a content provider (distributer) of customer-generated content, it uses ads to generate money. Thus, YouTube's *modus operandi* is the very opposite of the telephone service provider. *It knows content and makes money on it*.

Yet some of the customer-generated content might not be generated by the customer but by, say, James Cameron, which leads to pirated traffic. To YouTube's credit, it has implemented a monitoring program called Content ID, which we examine shortly. For now, and I am not picking on YouTube, I am trying to make the case for placing the responsibility for blocking the use of pirated electronic goods onto content provider (distributer) sites.

Many complaints about SOPA state its implementation would hurt YouTube and other file sharing sites.

Let's see if we have their line of reasoning stated clearly: Content providers that use customergenerated traffic to derive their income should have no responsibility for knowing about the legality or illegality of the very traffic from which they make their living.

These companies cannot have it both ways. If they rely on their very existence by supporting user-generated data, they should not be scot-free of any commensurate responsibility about the legality of that data. They cannot use my data to make their dollars without incurring some overhead. If not for my benefit, then for the *benefit of a functioning, commercial society*.

Okay, suppose legislation that is passed in Washington exempts the YouTubes of the world of any responsibility for the legality of the images they store and distribute? Who is then responsible? The only party left standing is the sole person or company that either creates the content, steals it, or ignores its illegality. Such as legitimate parties: Uyless Black and MGM, or intellectual property rights pirates.

In this role, the YouTubes mimic the telcos: They have no responsibility for the legality of the information they process. Except unlike the telcos, they make a mint on this arrangement.

The most strident opponents of SOPA are Websites that distribute someone else's content, generate huge revenue streams from that content, yet want to be shielded from anything to do with what essentially has made them some of the wealthiest establishments on earth.

Their philosophy reflects an old saying, "Heads I win, tails you lose."

With this scenario, one in which the file sharing sites such as Facebook and YouTube bear no responsibility for copyright protection, SOPA would *not* go after a Website for pirating (such as Megaupload.com). It would go after an *individual thief*, such as Blog.UylessBlack.com, anything with a domain name.

This scenario of snaring the little fish would generate a technical, legal, and logistical netherworld that would make a Dickens' bureaucratic nightmare seem like a dream.

Instead of Uncle Sam directing YouTube to monitor the traffic of its *many* users (which commendably, YouTube does), Uncle would have no choice but to get into the traffic monitoring business itself. After all, if the government is going to uphold its laws it has no choice but to monitor *every* user! No one else is left standing in the You Must Monitor Queue.

## The U.S. government would need a huge set of resources to get into this business. This scenario would have Sam dipping even more into our pockets and our packets.

In the end, irrespective of these hypothetical scenarios, I am in favor of each citizen being held responsible for upholding our nation's vital intellectual property right laws. It is not a mental leap for anyone to know if one is pilfering something that does not belong to him. Babies, even dogs, know the concept of theft.

However, with the existence of the digital world, the multicasting Internet, the happenstance evolution of file-sharing and social networks---with their credo of "information is free!---my rose-colored idea is akin to putting toothpaste back in the tube.

As well---and granting leeway to small fish pirates---what great harm is it for my friend to download a *single* performance of a singer to me? If I received the *entire* performance and my friend sent me a bill (who would now be my former friend), it is a different matter.

Any SOPA-type legislation should go after the big fish *and not take down little fish* or other innocent swimmers in the process.

#### **Ideas to Improve Matters**

If a content creator thinks online piracy will go away with the institution of laws such as SOPA, he is living a pipe dream about Internet's digital pipes. *The basic design of the Internet is openness, to allow the unfettered and unregulated flow of information between and among all* 

*Internet users*. To place legal boundaries on this architecture would be a body blow to its open architecture.

However, something must be done. I take exception to a hack in China putting his name on my book and selling it. Personal animosity aside, here are some ideas that could improve the current sorry situation. They are not perfect, but they are better than what we have now.

Three recommendations deal with:

- 1. Monitoring traffic
- 2. Registries
- 3. Fair use

#### **1. Monitoring Traffic**

This subject is a tough nut to crack, and admittedly goes against my reluctance to support packet wire tapping. With the vehement opposition to SOPA, monitoring has become an emotional issue.

Nonetheless, if one believes intellectual property rights should be protected, I cannot see any other way to do so other than checking the Internet's traffic for illegal goods. If this pipe is not turned-off or at least turned-down, a fundamental underpinning of our society will be at risk.

If copyright laws are no longer honored or enforced what is next? Patent law? Where does a nation draw the line? Intellectual property is not protected but physical property is? For a society to survive and flourish it must have Rules of Law, and these rules must have no exceptions.

I do not think it unreasonable for content providers to take on some responsibility for checking that content for copyright violation. After all, they make millions of dollars by knowing about the content they provide to customers.

Robert Levine makes this suggestion: Current laws should be revisited:<sup>2</sup>

...to give Internet service providers, online locker services, and ad networks at least some responsibility for how their products are used. As Congress recognized at the time (of passing legislation), it would be impractical for Internet service providers to have legal responsibility for everything they carry on their networks. But it seems increasingly irresponsible for them to do nothing. The way some Websites and online locker services maintain willful ignorance about copyright infringement---arguing that is someone else's problem---is no way to run a legitimate business. Giving safe harbor if they use a basic level of filtering, as YouTube does now, would be a reasonable compromise. (Writer: SOPA contains a safe harbor clause for voluntary filtering). This wouldn't slow innovation; it would encourage it. As pirate sites lost their unfair advantage, legitimate services would attract more investment and prosper.

<sup>&</sup>lt;sup>2</sup> Kindle copy of *Free Ride*, Chapter 10. Page number not available. Use Kindle's GO TO and key in portion of text to find passage.

(Levine uses the term *Internet Service Provider* much more broadly than I do in these reports. He is referring to (I hope) content providers (distributers), and not companies such as AOL who should not deal with content.)

I recognize this idea is repugnant to some people who say it delegates the role of the government to that of private enterprise. That's fine with me. I would rather have someone other than Uncle Sam do it, if it is done under an Internet sponsored standard (called a Request for Comments or RFC) that is developed by the Internet's users.

This idea would lead to agreements among content providers and content creators for content providers to notify customers if they were down-loading illegal goods. The content provider would warn their customers their actions are, if not illegal, in violation of their contract with the Internet site. Users could contest this notification through the courts.

Vital to any monitoring is the requirement for privacy. A monitoring site would not be allowed to divulge the monitored information to the public. It would interact with the alleged pirate and the alleged aggrieved party to resolve the matter. The latter party would have the courts available if it wished to pursue legal action.

This is a tricky issue because the potential exists for a monitoring site to deny service, not on illegal copy, but to a competitor. As Internet-based companies evolve, they are increasingly moving into each others' domains. See my essays titled "Net Neutrality" for details on this issue.

However, if net neutrality laws exist as I suggest in the net neutrality essays, a site that is denied service could use the courts for redressing its complaints. A special small-claims court could be established so that small fish content creators, such as Uyless Black, could have inexpensive access to the protection of the law.

Levine supports the contentions I made several times in these reports, "You can't have a market without some form of property rights, and those rights don't mean anything if they are not enforced." <sup>3</sup>

You don't like this idea? Then what is the alternative? The U.S. Government takes over the monitoring operations. Choose your poison.

(If your stand is that information should be free, then I return to my point made earlier. So should the fruits of *your* labors. I won't charge you for my books; you won't charge me for the widgets you make. We can try that for a while and see where it gets us, which will be commercial oblivion.)

Let's have private industry come up with solutions, with deadlines on issuing the RFC(s). If the public does not like these draft standards, there will be sufficient time and transparency to address their deficiencies.

<sup>&</sup>lt;sup>3</sup> Robert Levine, Chapter 10. . np. Kindle's GO TO, key in portion of text to find passage.

The monitoring should be done by content providers (distributers), not sites such as Internet Service Providers, who have no reason to perform deep packet inspection in the first place. Thus, an ISP such as AOL should not be required to monitor traffic.

Here's the idea in a nutshell:

- Content creator (such as MGM or Uyless Black): Copyright laws forbid infringement in the first place.
- Content provider/distributer (such as YouTube): Under strict privacy laws, monitors for illegal traffic.
- Internet Service Provider (such as AOL): No monitoring requirements, as long as it is fulfilling the function of only providing a pipe for traffic by using shallow packet inspection.
- U.S. Government: Hands-offs. Let private industry solve the problem. Uncle should pass legislation (less intrusive and less one-sided than SOPA) to thwart foreign piracy, but monitoring should be set up by private industry.

#### Move Forward Quickly before Uncle Sam Takes Over

About the last item in the list above: Time and again, it has been demonstrated that if the private sector does not take up the reins to solve a problem itself has created, government will. Often the government solution is cumbersome over-kill and further diminishes the efficiency of a free market.

So, I say to all the Internet file sharing/content provider/content distributer sites: Get your act together on the traffic monitoring issue; and quickly, or the U.S. government will do it for you.

As a starter, look at YouTube's Content ID.

#### YouTube and its Content ID<sup>4</sup>

YouTube's Content ID system detects uploaded video or audio streams that might infringe on copyright laws. The system creates a database containing information about copyrighted audio and video material. When a user file is uploaded, "...it is checked against the database, and flags the (traffic) as a copyright violation if a match is found. When this occurs, the content owner has the choice of blocking the video to make it unviewable, tracking the viewing statistics of the video, or adding advertisements to the video." (This quote deals principally with video, but audio can also be monitored.)

As expected, Content ID has detractors and must deal with the thorny issue of fair use. That said, it is a great idea and it is surprisingly effective considering it's a new system operating in somewhat thin air. If a customer disagrees with YouTube's actions, the customer can dispute the decision.

<sup>&</sup>lt;sup>4</sup> Wikipedia. Key-in <Wikipedia + Content ID>, also, YouTube.com.

In case file sharing sites are against this kind of monitoring, bear this in mind: "Content ID generates one third of YouTube's income."<sup>5</sup>

Let us hope private industry can come together with solutions such as Content ID and discourage Uncle Sam from writing other draconian SOPA-type acts by keeping Uncle out of this act.

One last point about monitoring: The critics of SOPA have said it permits the government (correct by implication) and private industry (incorrect) to packet wire tap. That is what Content ID does, but I have not seen any picket lines protesting YouTube's Little Brother monitoring operations.

#### 2. Registries

I am a member of The Author's Registry. This organization is a collection agency that works on my behalf (and other people who write commercially) to gather fees from the sales of my works (or parts of them).

If my publishers sell my books they send me royalty checks. In contrast, the Registry negotiates on my behalf to sell directly to readers, irrespective of my publishers, because I own the copyrights to all my books.

The downside: I must trust the Registry. The upside: I do.

The idea of an independent organization serving as a middleman between a creator and the creator's consumer might be too radical for the large content creators, such as movie studios and music recording companies. These enterprises could form privately-owned consortiums, sell their products on a monthly basis, and make their own determination about how to divide up the proceeds.

This concept appears to be even more radical than The Author's Registry, but it has been in effective operation for years:<sup>6</sup>

In the United States radio stations, restaurants, and other businesses that play music in public pay the collecting societies ASCAP, BMI, and SESAC which figure out what songs are most popular and disburse royalties accordingly to songwriters and the music publishers that represent them.

The idea is maligned by the welfare wonks who think everything should be free. Notwithstanding these intellectual carpetbaggers, a blanket license would give the copyright holders assurance they will be paid for their efforts. This idea appears to be gaining momentum, so stay tuned.

#### Fair Use

In order for the free-wheeling Internet to remain at least relatively free-wheeling, the small fish intellectual property rights pirate should be able to keep on pirating. The social and personal

 <sup>&</sup>lt;sup>5</sup> Robert Levine, Chapter 10. . np, Kindle's GO TO, key in portion of text to find passage.
<sup>6</sup> Ibid.

benefits gained from sharing (down-loading) a scene from *Avatar* or even a complete recording from Madonna outweigh the costs and impracticality of this level of monitoring and policing.

As said several times in these reports, I am no legal expert and do not know if fair use laws allow these sorts of pirating acts. They should. Part of a monitoring plan would keep track of customers' sharing events. If Uyless Black sends out a Madonna song more than x times, he is flagged and warned. If he persists, he can be sent to the gangplank to be sued or jailed.

Forgive the continued use of the fish and water metaphors, but fair use, in consonance with private monitoring and government legislation, should keep the big fish beached and the little fish swimming.

#### Summary

SOPA needs considerable revision to make it effective and fair. Maybe it should be scrapped. It is too government-centric and government-intrusive. But let us not throw out the baby with the bath water. We need a version of SOPA to abet America's vaunted commercial system, a system largely based on the rules of intellectual property rights.

I support private industry solving the problem it created, perhaps through an Internet "SOPA" RFC. Systems such as YouTube's Content ID are fine models to use as input to one or more RFCs. With privacy controls, sensible royalty allocations, and common-sense monitoring, we can put a big shot into the hulls of privacy pirates.

One last shot across the bow of the intellectual property welfare wonk, one I beat to death in these essays. If you believe information should be free, that the fruits of my labor should come at no cost to you, then you must accept that the fruits of your labor should also be free. If so, you are destined to be standing in a welfare line. So, turn off your pirated movie and head for the unemployment office, which offers free cash...for a few months.

#### **PostScript: A Brief Review of OPEN**

I am pleased to have time to meet deadlines and relay some general information to you about OPEN (Online Protection and Enforcement of Digital Trade Act). As mentioned at the beginning of this report, it is in a draft stage.

OPEN is a vast improvement over SOPA. Uncle Sam is now on the right track. I hope I have not overlooked clauses that contradict my assertions. If so, let me know and I will revise them.

#### OPEN:

- does not authorize the government to seize any site without first notifying the site and allowing the site to make its case.
- does not authorize the government to issue any kind of restraining order without first notifying the site and allowing the site to respond.

- uses the word *seize* once, but only in regard to trademarked goods, such as medicine, not Internet sites.
- deals only with foreign sites (foreign big fish) that are dedicated to online piracy, not small fish or domestic big fish.
- makes no statement about using the Domain Name System for blocking; leaves it up to the domestic site to determine how it ceases operations with a foreign site.
- removes the heavy hand of the Justice Department taking non-transparent and unilateral actions against an Internet site.
- achieves transparency by stipulating open hearings can be held about an Internet site engaging in alleged pirating.
- states that the President can override any actions sanctioned by OPEN for policy reasons.
- does not contain the word *monitor*.

After having read these five reports, you can see that OPEN fixes much of SOPA.

Now, private industry (the content providers/distributers) must take on the responsibility of that last item in the list: monitoring for illegal traffic.