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How the feds took down the Dread Pirate Roberts

What he wouldn't give for a holocaust cloak.

by Nate Anderson and Cyrus Farivar Oct 3 2013, 6:00am CEST

INTERNET CRIME 178



If you've been living under a cultural rock the Dread Pirate Roberts was a character from the cult film The Princess Bride (based upon the book of the same name).

Aurich Lawson / ACT III Communications

The Dread Pirate Roberts, head of the most brazen drug trafficking site in the world, was a walking contradiction. Though the government says he raked in \$80 million in commissions from running Silk Road, he allegedly lived under a false name in one bedroom of a San Francisco home that he shared with two other guys and for which he paid \$1,000 a month in cash. Though his alleged alter ego penned manifestos about ending "violence, coercion, and all forms of force," the FBI claims that he tried to arrange a hit on someone who had blackmailed him. And though he ran a site widely assumed to be under investigation by some of the most powerful agencies in the US government, the Dread Pirate Robert appears to have been remarkably sloppy—so sloppy that the government finally put a name to the peg leg: Ross William Ulbricht.

Yesterday, Ulbricht left his apartment to visit the Glen Park branch of the San Francisco Public Library in the southern part of the city. Library staff did not recognize him as a regular library patron, but they thought

nothing of his visit as he set up his laptop in the science fiction section of the stacks. Then, at 3:15pm, staffers heard a "crashing sound" from the sci-fi collection and went to investigate, worried that a patron had fallen. Instead, library Communications Director Michelle Jeffers tells us that the staff came upon "six to eight" FBI agents arresting Ulbricht and seizing his laptop. The agents had tailed him, waiting for the 29-year-old to open his computer and enter his passwords before swooping in. They marched him out of the library without incident.

For a promising young physics student from Austin, Texas, this wasn't how things were supposed to turn out.



L'operazion richiesta no essere completata

Il file o la cartella r esiste

Dettagli della richiesta:

- URL:
- file:///ads/newad.html#file://a
- Protocollo: file
- Data e ora: giovedì 2 gennaio 16:33
- Informazioni aggiuntive:

Descrizione:

Il file o la cartella /ads/newad.htm

Cause possibili:

La risorsa specificata potreble esistere.

Soluzioni possibili:

• Assicurati che la risorsa esist di nuovo.

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Ulbricht, in happier times.

"Choose freedom over tyranny"

Sure, you could buy meth, LSD, cannabis, heroin, and MDMA on the Silk Road, but the hidden website wasn't (just) about drugs. Silk Road was, said its owner, about freedom. In January 2012, as part of a "State of the Road Address" posted in the site's discussion forum, the Dread Pirate Roberts explained the site's goal: "To grow into a force to be reckoned with that can challenge the powers that be and at last give people the option to choose freedom over tyranny."

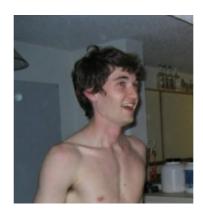
To that end, the Dread Pirate Roberts built the Silk Road marketplace in 2011 as a "hidden" service accessible only over the encrypted Tor network. To connect, users first had to install a Tor client and then visit a series of arcane site names (the most recent was silkroadfb5piz3r.onion), but the reward was a simple, effective marketplace to buy drugs from sellers all over the world using such Internet commerce staples as escrow accounts and buyer feedback. The product was shipped through the mail, direct from seller to buyer, keeping the Dread Pirate Roberts clean. The only link between him and the drugs was the money, and Roberts eventually took only the electronic currency called Bitcoin to make this hard to trace. He even ran a program called a "tumbler" to route incoming Bitcoin payments through a complicated series of dummy transactions, so as to make them infeasible to trace through the public Bitcoin blockchain. Out of each transaction, Roberts took a cut—8 to 15 percent, depending on the size of the sale.

This eventually earned Roberts a pirate's treasure. By 2013, Silk Road had nearly one million user accounts. In the 2.5 years the site operated, it facilitated 1.2 million transactions worth 9.5 million Bitcoins—or about \$1.2 billion in total money exchanged. (Bitcoin values varied widely over this period.) Roberts picked up a cool \$80 million in commissions.

No surprise, then, that the Drug Enforcement Administration, the Internal Revenue Service, Homeland Security Investigations, and the FBI all joined forces to track down Roberts and the largest sellers on his marketplace. In November 2011, after coming under pressure from Congress, the agencies began the hunt and quickly found that Roberts had been right—encryption, Tor, and "tumbled" Bitcoins were a potent combination to crack.

But investigations always have many threads to pull. The feds couldn't initially follow the money to Roberts, nor could they find the physical location of his cloaked servers. In the absence of usual digital clues, the feds fell back on a low-tech approach: keep going back in time until you find the first guy to ever talk about the Silk Road. Find that guy and you probably have a person of interest, if not Roberts himself.

So they looked, assigning one agent to conduct "an extensive search of the Internet," in the FBI's words, looking for early Silk Road publicity. The earliest post ever to mention the site appeared on a drug-oriented forum called shroomery org. Where a user named "altoid" had



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Cause possibili:

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outloa officially.org, who to a accordance attoral made

made a single post. It read:

I came across this website called Silk Road. It's a Tor hidden service that claims to allow you to buy and sell anything online anonymously. I'm thinking of buying off it, but wanted to see if anyone here had heard of it and could recommend it.



Ulbricht at his 21st birthday party.

The post directed readers to visit

silkroad420.wordpress.com, belonging to the blogging operator WordPress, where further instructions would be found for accessing the real Silk Road site. A subpoena to WordPress Revealed that the blog had been set up on January 23, only four days before the Altoid post. If this wasn't the *first* mention of Silk Road, it was certainly one of them.

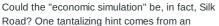
Altoid became a person of interest, but who was he? Further research revealed that Altoid had been posting on a board called Bitcoin Talk—further suggesting a possible link to the Silk Road, which operated on Bitcoin. A key break came when the agent found an October 11, 2011 post by Altoid, looking for an "IT pro in the Bitcoin community" and directing all inquiries to "rossulbricht at gmail dot com."

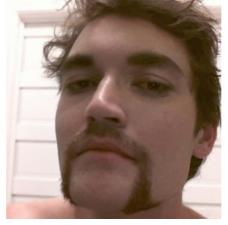
A subpoena to Google revealed that this account was in fact registered to one "Ross Ulbricht." The account was also linked to a Google+ profile, which had a picture of Ulbricht and a link to his favorite videos on YouTube. The videos provided a key clue; several of them were from the libertarian Mises Institute, whose views jibed with the leanings of the Dread Pirate Roberts. In addition, Roberts had repeatedly linked up Mises videos when posting in the Silk Road forum and had referenced "Austrian school" economists like Ludwig von Mises, for whom the Institute was named. The clue was suggestive but not conclusive.

Still, the pieces were coming together.

The economic simulator

With the name Ross Ulbricht, the feds went to other social networks. They found Ulbricht on LinkedIn, where he talked about his dissatisfaction with the physics work he had been doing as a graduate student at Penn State. "Now, my goals have shifted," Ulbricht wrote. "I want to use economic theory as a means to abolish the use of coercion and aggression amongst mankind... The most widespread and systemic use of force is amongst institutions and governments, so this is my current point of effort. The best way to change a government is to change the minds of the governed, however. To that end, I am creating an economic simulation to give people a first-hand experience of what it would be like to live in a world without the systemic use of force."





Enlarge / Ulbricht and his horseshoe mustache.

anonymous article published in alternative newspaper *The Austin Cut*, located in Austin, Texas where Ulbricht grew up. The story was, in essence, a primer on how to build Silk Road and an explanation of what made the site so amazing—and the answers were "freedom" and "lack of force."

"Hackers, anarchists, and criminals have been dreaming about these days since forever," wrote the author. "Where you can turn on your computer, browse the web anonymously, make an untraceable cash-like transaction, and have a product in your hands, regardless of what any government or authority decides... This is about real freedom. Freedom from violence, from arbitrary morals and law, from corrupt centralized authorities, and from centralization altogether. While Silk Road and Bitcoin may fade or be crushed by their enemies, we've seen what free, leaderless systems can do. You can only chop off so many heads."

The article's author then relayed a telling anecdote from Silk Road, one in which people began arguing over a botched deal. They got angry; one threatened violence, but he was simply mocked by other users because he had no way to find his target. "It showed how successful Silk Road really is," wrote the author. "It makes drug buying and selling so smooth that it's easy to forget what kinds of violent fuckers drug dealers can be. That's the whole point of Silk Road. It totally takes evil pieces of shit out of the drug equation. Whether they're vicious drug dealers or bloodthirsty narcotics cops, both sides of that coin suck and end pretty much the same way. Death, despair, madness, prison, etc. Thanks to decentralization and powerful encryption, we're able to operate in a digital world that is almost free from prohibition and the violence it causes."

This fits with Ulbricht's arguments, and the piece might well be by him, providing a better sense of why he saw the experiment as such an important one. We asked the editor of the *Cut* what he thought. "I

Soluzioni possibili:

 Assicurati che la risorsa esist di nuovo.

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wondered the same thing," he said, but he added that he didn't know who wrote the piece.

In any event, the feds had a name but no hard evidence linking Ulbricht to the site management. They knew that Ulbricht had moved to San Francisco and was staying for some time with a friend, and they knew that whoever was logging into the "rossulbricht" Gmail account was doing it on occasion from the friend's house. But the next link in the chain only came when the feds uncovered a post on the popular coding advice site StackOverflow.

In early 2012, Ulbricht registered a StackOverflow account using his Gmail address; the username was "Ross Ulbricht." On March 16, Ulbricht asked for help with connecting "to a Tor hidden server using curl in php." He included several lines of code that weren't working quite right. Perhaps realizing that this was a bad idea, one minute later Ulbricht changed his username to "frosty" (he changed his e-mail address a bit later), but he had already revealed his interest in running Tor sites.

At this point, the government gets cryptic. On July 10, 2013, Customs and Border Protection intercepted a package coming from Canada into the US as part of a "routine border search." This package contained nine counterfeit IDs, each of them in a different name, but each of them showing a picture of Ulbricht. They were addressed to his San Francisco address.

Two weeks later, the government found the Silk Road servers in various foreign countries, though it won't say how. (The FBI gives no indication that Tor was compromised in this case, though given that the agency has recently found ways to spy on Tor users, it's hard to absolutely rule out the possibility.) It's possible that finding various aliases for Ulbricht enabled agents to track the money used to pay for the servers, but the events may have been unrelated. The main Silk Road Web server was found in "a certain foreign country" that has a Mutual Legal Assistance Treaty with the US. Under the terms of that treaty, the government asked for an image of the server's hard drives, which was made on July 23 and then turned over to the FBI.

(Update: Computer security research Nicholas Weaver speculates that "the FBI (with a warrant) hacked the site sufficient to discover the site's IP by generating a non-Tor phone-home and then contacted the country of the hosting provider which then got the server imaged. Yet since the server imaging didn't involve taking the server down or disrupting service sufficient to spook Mr DPR into taking his bitcoins and running, I suspect that this was some virtual-machine hosting provider." But at this point, no one knows.)

Three days later, agents from Homeland Security Investigations visited Ulbricht's 15th Street home in San Francisco. They found him at home, where his two housemates knew him as "Josh." One of them told the agents that "Josh" was "always home in his room on the computer." As for Ulbricht himself, he refused to answer most questions, though he did volunteer one curious bit of information, apparently as a way of indicating that such documents could be obtained so easily that anyone might have ordered them, or that he had been framed.

"Hypothetically," he told the agents, anyone could visit a site named "Silk Road" on "Tor" and order any drugs or fake IDs they wanted.



READER COMMENTS 178





Nate Anderson / Nate is the deputy editor at Ars Technica, where he oversees long-form feature content and writes about technology law and policy. He is the author of The Internet Police: How Crime Went Online, and the Cops Followed.

@natexanderson









