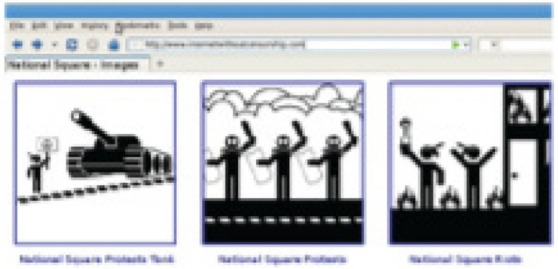
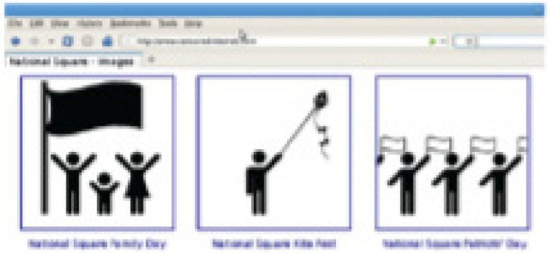
Tor: Privacy and Freedom Online

Support Internet Freedom - Run a Tor Relay!

Internet censorship and monitoring are used by regimes across the globe. Some leaders think that their citizens cannot be trusted to determine which pages are appropriate to read. Some suppress dissent by rounding up bloggers, while many keep people from speaking out in the first place by making it known that the police are watching everyone. Others filter search results in order to rewrite history. For instance, this is what an image search for the scene of political unrest looks like on an uncensored connection:



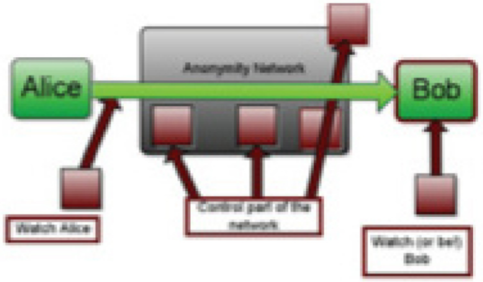
When you add filtering, this is what the same search looks like:


National Square - Images
National Square Family Day
National Square Kite Fest
National Square Patriots' Day

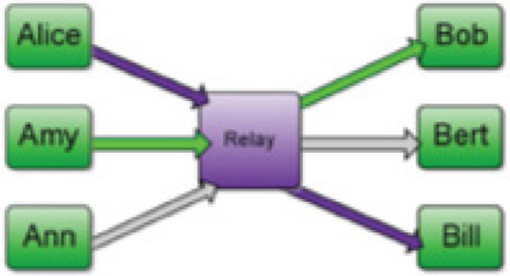
After a few years, it's almost as if nothing ever happened there. History is reduced to a rumor. In times of political unrest, journalists are deported, leaving reporting up to citizens who use the Internet to post videos and write to news organizations. Getting the news out ensures that the record of events can not be erased.

Tor allows people behind national firewalls to circumvent censorship and keep their governments from finding out what they are doing online.

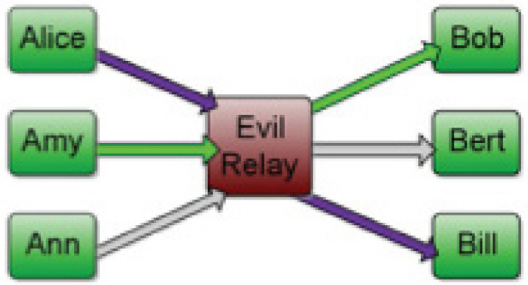
There are several ways to control the Internet use of citizens. Alice can be watched as she conects to Bob, Bob can be watched, Bob can be working for the regime, or Alice can just be prevented from connecting to Bob's site.



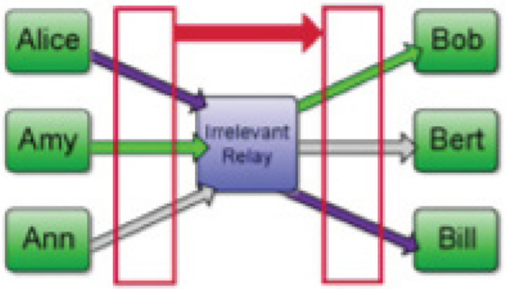
There are also several ways to get around restrictions. One, offered by some commercial proxy providers, is a single relay to hide connections. Here, Alice is connecting to Bill:



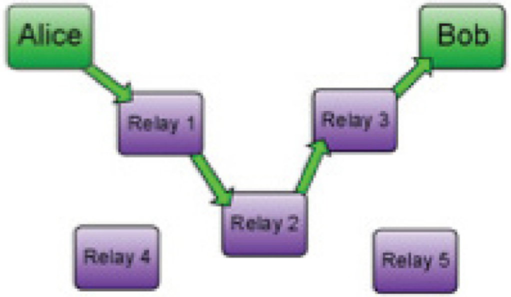
A single relay is a single point of failure, or it can be run by an eavesdropper. This is privacy by promise, and is only as good as long as the proxy provider chooses not to reveal your information. Money can change hands, the relay can be hacked, or political pressure can lead to leaks.

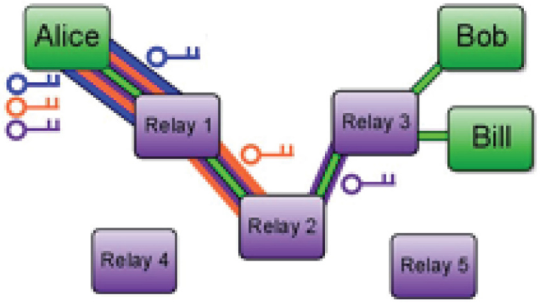


If the proxy provider does not snoop, others can still get past a single relay. Timing analysis can still be used to bypass the relay and figure out what people are doing online.



Adding multiple relays means that no one relay can betray users. Tor's relays are run by volunteers around the world.





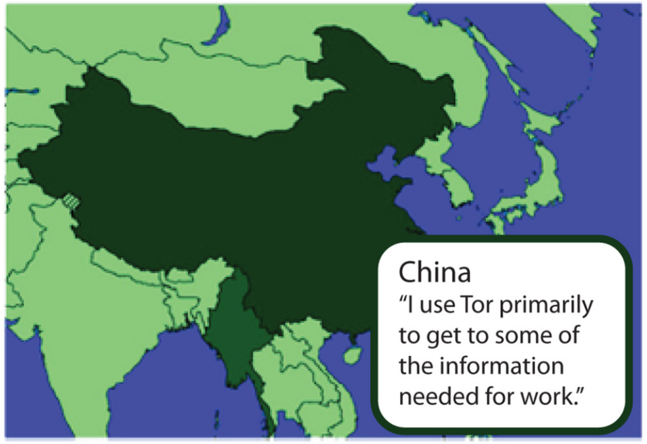
Alice makes a session key with the first relay, then tunnels to the second relay and then the third. No one relay has all the information about Alice's activity online. This is privacy by design. A network can not reveal information it did not gather in the first place.

Alice can still reveal too much information to Bill, Bob, or someone posing as friendly, but using Tor puts more control into her hands.

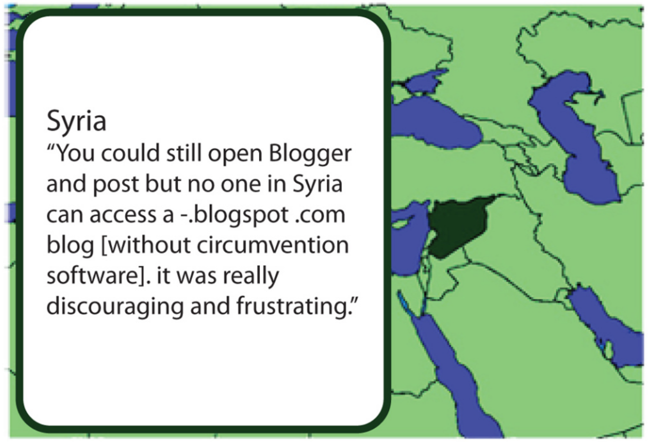
Tor's software developers are working to make Tor safer and easier to use, but we need your help. Every person who runs a relay makes the Tor network faster.

To find out how to donate bandwidth to people fighting for free speech and privacy, go to

https://www.torproject.org



China
"I use Tor primarily to get to some of the information needed for work."



Syria
"You could still open Blogger and post but no one in Syria can access a -.blogspot .com blog [without circumvention software]. it was really discouraging and frustrating."

Mauritania
"Tor rendered the government's efforts completely futile. They simply didn't have the know-how to counter that move. Ironically we felt even more secure because we learned an invaluable lesson: encrypt and anonymize."