

INTERNET CENSORSHIP AND RESISTANCE



Joseph Bonneau

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(thanks to Steven Murdoch)



**UNIVERSITY OF
CAMBRIDGE**

Computer Laboratory

GATES SCHOLARS' SYMPOSIUM 2010

Historical Censorship



He who controls the past controls the future, and he who controls the present controls the past

—George Orwell, *Nineteen Eighty Four*, 1949

Historical Censorship



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Information as a Human Right

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

—Article 19, UN Declaration of Human Rights (1948)

Information as a Human Right

The final freedom, one that was probably inherent in what both President and Mrs. Roosevelt thought about and wrote about all those years ago, ... is the freedom to connect—the idea that governments should not prevent people from connecting to the internet, to websites, or to each other... a new information curtain is descending across much of the world.

—Hillary Clinton, US Secretary of State (2010)

The Internet Dream

The Net treats censorship as damage and routes around it.

— John Gilmore, 1993

The Internet Reality

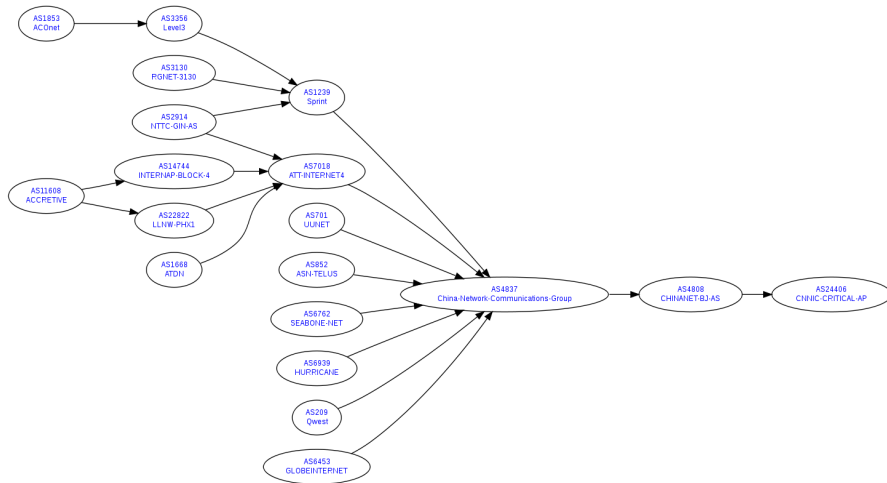
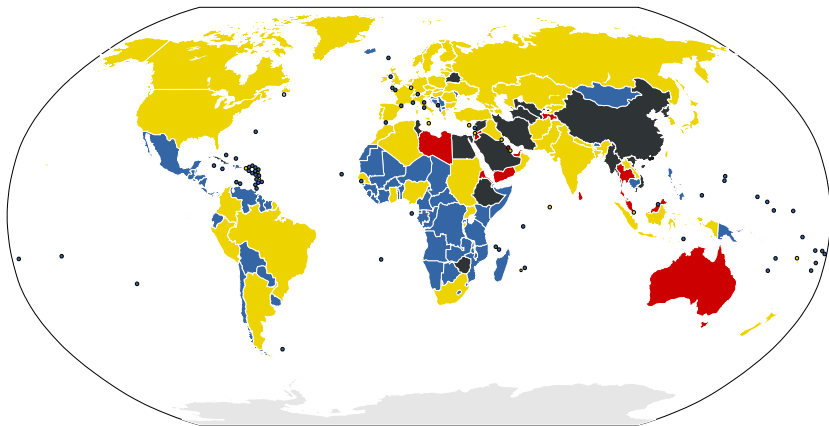


Diagram: robtex.com

Pervasive Censorship



Reporters Without Borders Internet censorship ratings

Pervasive Censorship



Herdict.com

Frequently Blocked Content

- International News
- Political Opposition
- Militant Groups
- Human Rights
- Religion
- Pornography
- Sex Education
- Homosexuality
- Drugs & Alcohol
- “Illegal” Content
 - Hate groups
 - Child pornography
 - Copyrighted material
 - Witness identities



BBC

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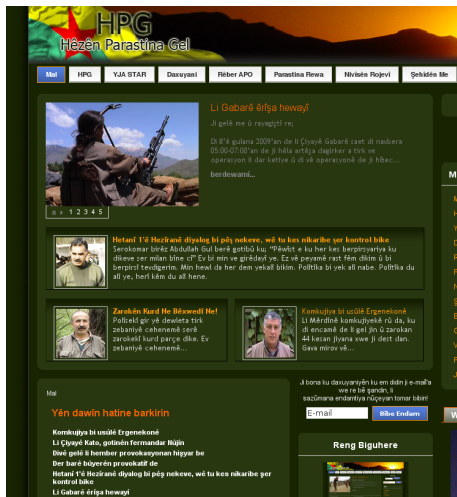


The screenshot shows the homepage of the Falun Dafa website. At the top, there is a header with the text '真善忍 Truthfulness Compassion Tolerance' and the 'Falun Dafa' logo in English and Chinese. Below the header, there is a navigation bar with links to 'Books', 'Exercises', 'Audio & Video Downloads', and 'falundafa.org', 'clearharmony.net', and 'faluninfo'. The main content area is divided into two columns. The left column contains a 'Main Menu' with links to 'Home', 'Introduction', 'Situation in China', 'Falun Gong classes in United Kingdom', 'FAQs', 'Contact Us', 'Links', and 'Gallery'. Below the menu is a 'Site Search' box with a search bar and a 'Search' button. The right column contains the main text, which starts with 'Falun Gong, also known as Falun Dafa is an ancient practice for refining the body and mind, moral and spiritual elevation in accordance with the universal principles of Truthfulness, Compassion and Forbearance; includes qigong exercises and meditation.' It continues with a paragraph about the practice's introduction in 1992 and its popularity. A small image of a person in a red shirt is visible on the right. Below the text, there is a quote from Li Hongzhi, dated July 22, 2009. At the bottom, there is a section titled 'Introduction' with a brief description of Falun Gong and a link to 'Read more...'.

Falun Gong

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Kurdistan Worker's Party (PKK)

Frequently Blocked Content

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ACTIVE ISSUES:

-  BEIJING OLYMPICS 2008 TAKE ACTION!
- ETHICAL GLOBALIZATION
- TECHNOLOGY AND HUMAN RIGHTS
- LEGAL REFORM
- HUMAN RIGHTS DEFENDERS

PUBLICATIONS:



RECENT PUBLICATION

The Fog of Censorship: Media Control in China [He Qinglian]

PRESS RELEASE/STATEMENT

Beijing Lawyers Beaten for Representing Falun Gong Case

HRIC has learned that Beijing rights defense lawyers **Zhang Kai (张凯)** and **Li Chunfu (李春富)** were violently beaten at their client's home in Chongqing by local police on May 13, 2009. They were then brought to the local police station for interrogation and were locked up in an iron cage and slapped in the face. A month earlier, Beijing rights defense lawyer **Cheng Hai** was also violently beaten by the police in Chengdu, Sichuan for handling a Falun Gong case.... [More >>](#)

PRESS RELEASE/STATEMENT

Wife of Abducted Rights Defense Lawyer Gao Zhisheng Requests Urgent Help from U.S. Congress in Open Letter

Geng He (耿和), wife of **Gao Zhisheng (高智晟)**, the prominent Chinese rights defense lawyer who has been disappeared since early February 2009, is requesting help from the United States government to put pressure on the Chinese government to disclose Gao's whereabouts. She has requested that Human Rights in China (HRIC) release her open letter, dated April 23, 2009, to members of the U.S. Congress.... [More >>](#)

Human Rights in China

Joseph Bonneau (University of Cambridge)

Internet Censorship and Resistance

May 15, 2009

7 / 32

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Christianity.com

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Playboy

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Fallopian tube

From Wikipedia, the free encyclopedia

The **Fallopian tubes**, named after **Gabriel Fallopius** (**Gabriele Fallopio**), also known as **oviducts**, **uterine tubes**, and **salpinges** (singular **salpinx**) are two very fine tubes lined with **ciliated epithelia**, leading from the **ovaries** of female **mammals** into the uterus.

Contents [\[show\]](#)

Anatomy

[\[edit\]](#)

There are two Fallopian tubes attached to either side of the **corneal** end of the uterus at the **axilla of Welch**. Each terminates at or near one ovary forming a structure called the **fimbria**.

The Fallopian tubes are not directly attached to the ovaries, but open into the **peritoneal cavity** (essentially the inside of the abdomen); they thus form a direct communication between the peritoneal cavity and the outside via the vagina.

In **humans**, the Fallopian tubes are about 7–14 cm long.

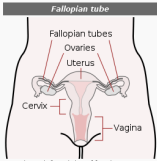
If a Fallopian Tube is missing from the pair, then the other Fallopian tube that is functional could still be a way of carrying an egg down to the uterus.

Regions


[\[edit\]](#)

There are four regions of the fallopian tube from the ovary to the uterus:^[1]

- **infundibulum** - contains **fimbria**
- **Ampulla** - usual site of fertilization



Schematic frontal view of female anatomy



Vessels of the uterus and its appendages, rear view. (Fallopian tubes visible at top right and top left)

Latin	tuba uterina
Gray's	subject #267 1257 @
Artery	tubal branches of ovarian artery, tubal branch of uterine artery
Lymph	lumbar lymph nodes
Precursor	Müllerian duct
MeSH	Fallopian+Tubes @

Wikipedia

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International Lesbian & Gay Association

Frequently Blocked Content

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You are here: [Home](#) > [Drink & Drugs](#) > [Drug Safety](#) > [Drugs A-Z](#) > Cocaine

Cocaine

The effects, the risks, the law.



AKA:
Charlie, chang, cole, gad-, toot, Vialli, showbiz sherbert, snow, white, candy, Percy and sniff.


Background:
Cocaine is a white, flaky powder obtained from the leaves of the coca plant. It is odourless, soluble, and has powerful stimulant properties similar to those of amphetamines.

The most common method of taking cocaine involves sniffing or snorting a small amount (usually called a 'line') up the nose through a small tube (often a rolled-up banknote or straw). The drug is then absorbed into the blood via the nasal membrane. Cocaine can also be heated and the fumes inhaled. In soluble form, cocaine can be injected.

Other forms of cocaine:
Freebase cocaine is cocaine without its water-soluble component or 'base'. A chemical treatment is used to draw out the 'pure' cocaine from many of the impurities, increasing the impact of the effects when smoked. Crad: is a form of freebase cocaine made by heating cocaine hydrochloride with baking soda or ammonia in water. Speedball is the term given for an injectable and dangerous mixture of soluble cocaine and heroin.

The effects:

- Cocaine produces feelings of wellbeing, mental exhilaration, and euphoria;
- The sensations often last between 15-30 minutes followed immediately by a 'coming down' period.

Get TheSite


Next Steps

- > **Talk to Fr**
about drug
Tel: 0800
- > **Release** -
problems.
Tel: 0845

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We all feel at
when does a

Paranoia
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Who is Ernst Zündel? Why is he loved by so many - and equally demonized and vilified by others? Get to know the one-man powerhouse Revisionist who has dedicated his life to clearing Germany of the blood libel of the "Holocaust" [\[More\]](#)

Zündel documentary currently in progress

[Visit the donation page](#)



"Holocaust Myth 101"

 **ENGLISH**

This English document comes in eight parts. It is the original document on which the following translations are based. It summarizes the following eight Revisionist claims, broadly sketched:

PART I - The Holocaust is useful postwar propaganda that started as a systematic, insidious campaign during World War II as one of the tactics employed by moneyed interests to rally the troops and engage the world, specifically America, in what turned out to be, essentially, a fratricidal war.

PART II - There is no proof that the Holocaust, as depicted by the Holocaust Promotion Lobby and the highly politicized Hollywood industry, actually occurred.

PART III - The numbers of "Holocaust" victims are irresponsibly exaggerated.

PART IV - Official state policy towards the Jews in the Third Reich was emigration, not extermination.

PART V - Not a single document has been found with Hitler's signature ordering the extermination of the Jews.

PART VI - Zyklon B was a fumigant. It wasn't a practical agent for mass murder.

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Leaked 2009 Blacklist:

- Poker
- Youtube videos
- Gay porn
- Wikipedia pages
- “Fringe” religions
- Euthanasia
- A tour operator
- A dental practice

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and Media Authority**

communicating | facilitating | regulating



Normal Web Browsing

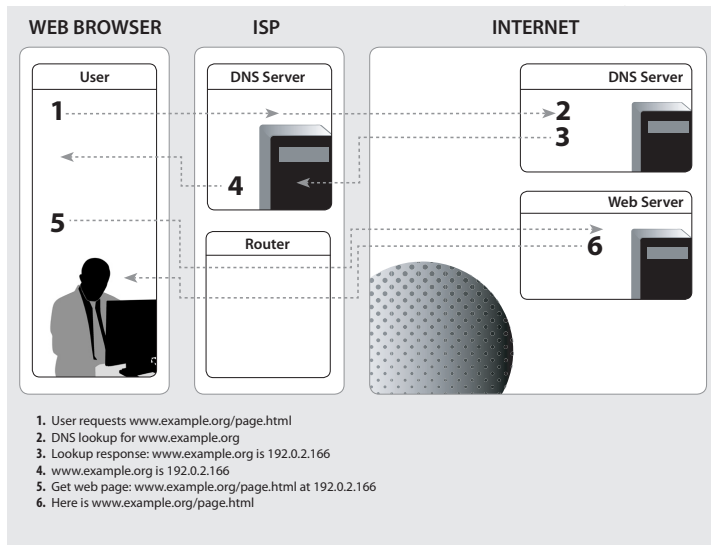


Diagram: Jane Gowan

DNS Blocking

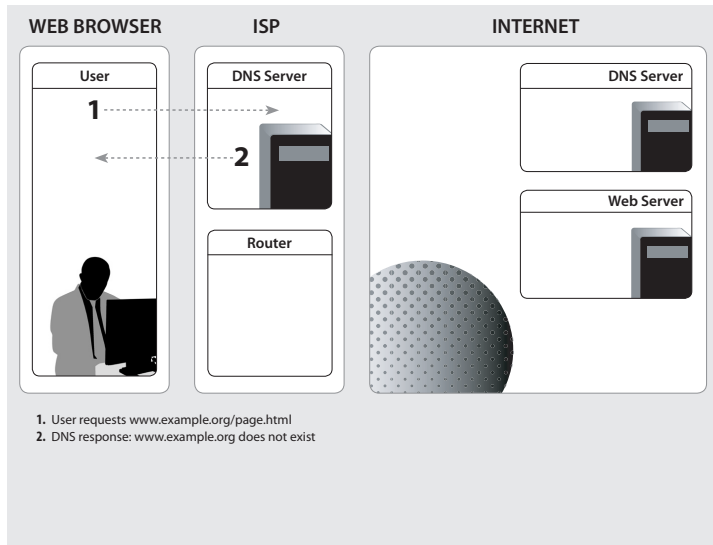


Diagram: Jane Gowan

IP Blocking

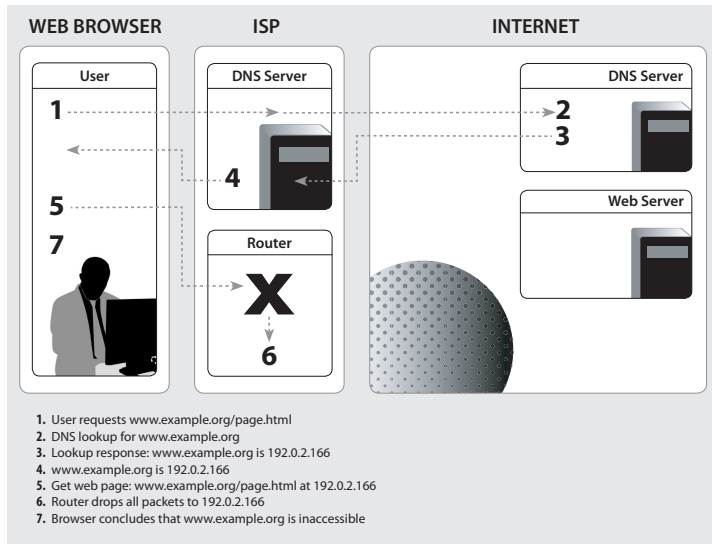


Diagram: Jane Gowan



Address Not Found

Firefox can't find the server at www.freetibet.cn.

The browser could not find the host server for the provided address.

- Did you make a mistake when typing the domain? (e.g. “**ww**.mozilla.org” instead of “**www**.mozilla.org”)
- Are you certain this domain address exists? Its registration may have expired.
- Are you unable to browse other sites? Check your network connection and DNS server settings.
- Is your computer or network protected by a firewall or proxy? Incorrect settings can interfere with Web browsing.

Try Again

Deep Packet Inspection

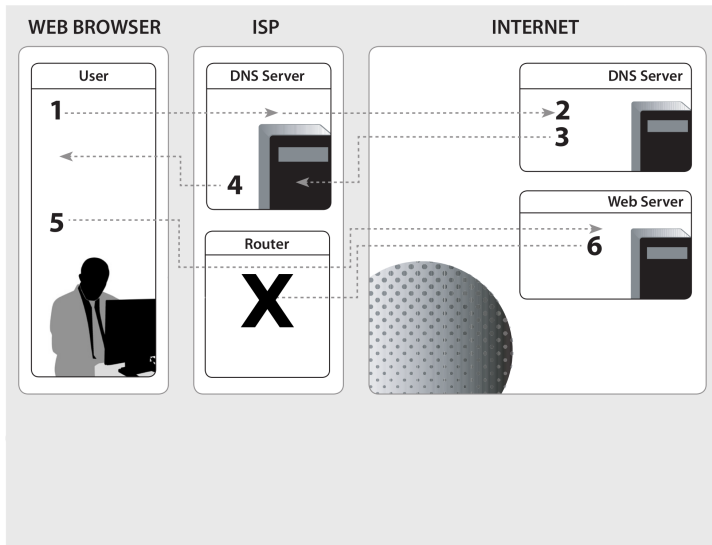


Diagram: Jane Gowan



Connection Interrupted

The connection to the server was reset while the page was loading.

The network link was interrupted while negotiating a connection. Please try again.

Try Again



Tradeoffs

- DNS blocking
 - Cheap, very easy
 - Over-blocks complete websites
 - Trivial to bypass
- IP blocking
 - Cheap, easy
 - Over-blocks virtual hosting
- Deep Packet Inspection
 - Expensive
 - Tricky to get right
 - Far more powerful



Photograph: David Gaya

The Censorship-Industrial Complex



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MOBILE SERVICES

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NORTEL
NETWORKS™



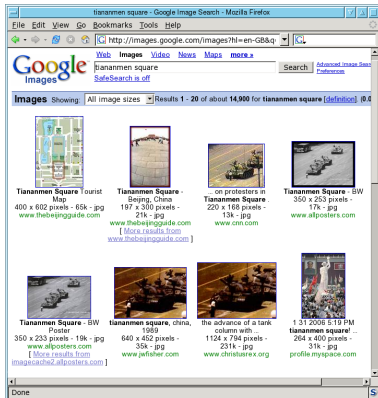
Seven "Corporations of Interest," EFF

Blocking Through Regulation

- ISPs
- Web service providers
- Search engines



Blocking Through Regulation



“Tiananmen Square” on Google.com and Google.cn

Blocking Through Regulation

You have got to decide do you want to obey the laws of the countries you are in or not? If not, you may not end up doing business there...

Blocking Through Regulation

You have got to decide do you want to obey the laws of the countries you are in or not? If not, you may not end up doing business there...



Bill Gates

Blocking Through Fear & Intimidation



Blocking Through Fear & Intimidation

- Ubiquitous Warnings
- Intimidation
 - Social pressure
 - Disconnection
 - Extra-legal punishment
- Citizen policing



Blocking Through Fear & Intimidation

I call on Egyptian government officials to take the necessary procedures to protect the Egyptian youth from the spread of subversive religious ideologies among them by permanently shutting down religious institutions in this country.

—Kareem Ameer, Egyptian blogger
(sentenced to four years in prison)



Problems with Blocking

- Deployment costs
- Lack of transparency
- Temptation to abuse
- Transition to active surveillance
 - USA: NSA wiretapping
 - UK: Interception Modernisation Programme

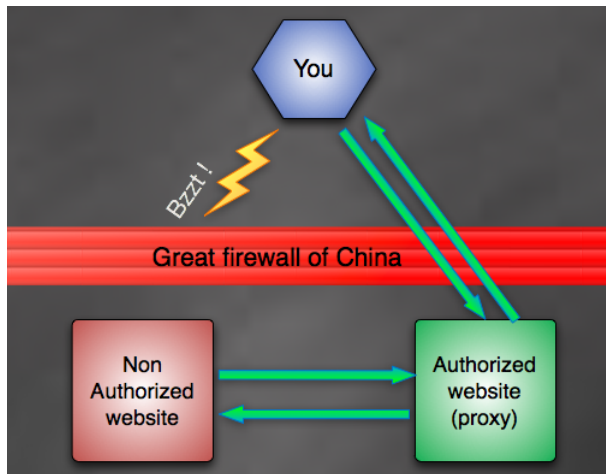


NSA room 641

*Avoid telling hackers they shouldn't do something, and
NEVER tell them they can't do it...*

- Software to resist censorship:
 - Hide where a user is visiting
 - Hide who the user is
 - Hide where content is hosted
- Must also resist attack by censors

Web Proxies



- Relay traffic through an uncensored machine
- Vulnerable to monitoring and punishment

Paid VPN services



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Frequently Asked Questions

products & services

personalVPN™ – SSL (openVPN)

Our openVPN-based SSL VPN is our most popular service. WiTopia openVPN customers enjoy full access to all WiTopia gateways – Dallas, TX, London, UK, Los Angeles, CA, Manchester, UK, New York Metro, San Francisco, CA, Seattle, WA, Washington, DC, Hong Kong, CN (more coming soon!) – as well as alternate ports and 256-bit encryption options. This will ensure the ultimate in speed, unblockability, and security. Experts worldwide agree that openVPN is a wonderfully robust and powerful VPN solution. As the first VPN service provider to deploy it commercially back in March 2005 we absolutely agree. See chart at bottom of page for compatible devices and comparison.

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**30 DAY
Moneyback
Guarantee**

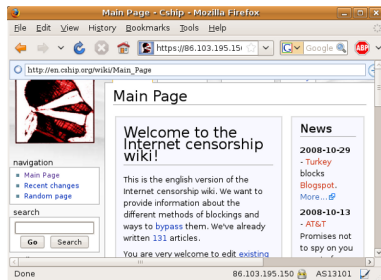


Not sure which WiTopia service is right for you?

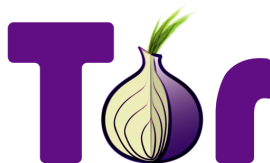
[Click here to check out our comparison chart.](#)

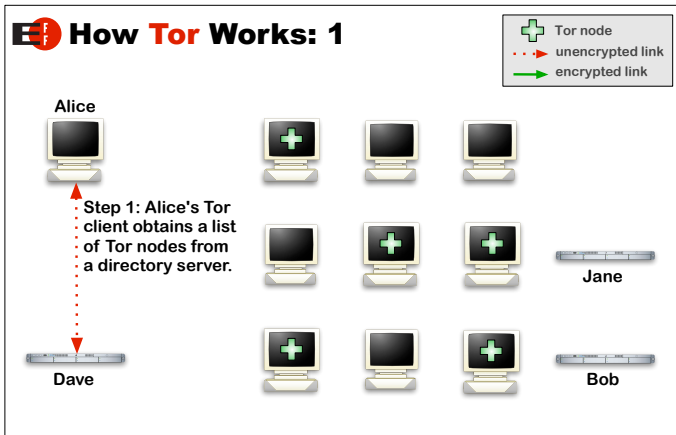
Psiphon

- Users in free countries set up proxies
- Censored users choose a proxy run by somebody they trust
- No software for browsing user
- Encryption hides traffic
- Weak anonymity

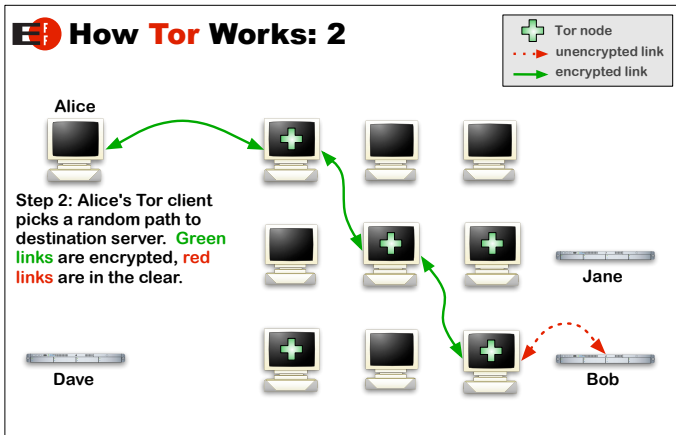


- Anonymous web-browsing
- Anonymous hosting
- De-centralised
- Versatile



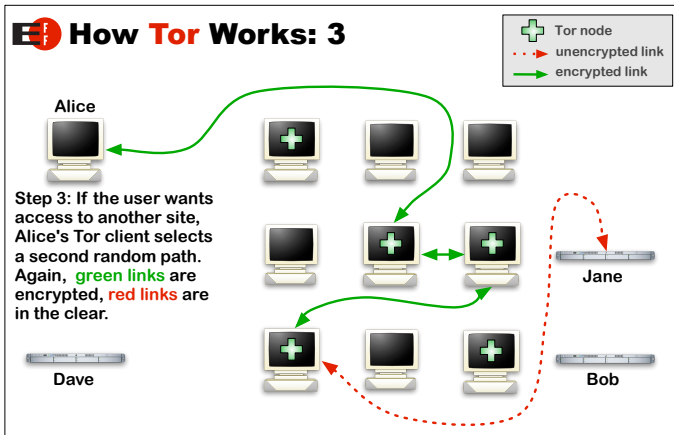


Diagrams: EFF



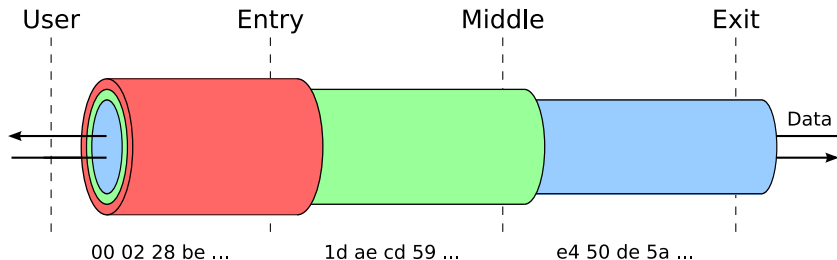
Diagrams: EFF

Tor Circuits



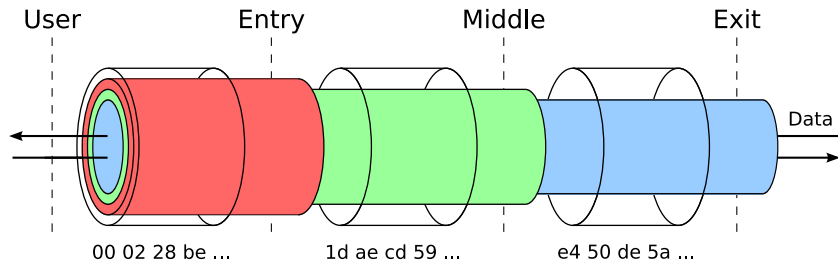
Diagrams: EFF

Tor Cryptography



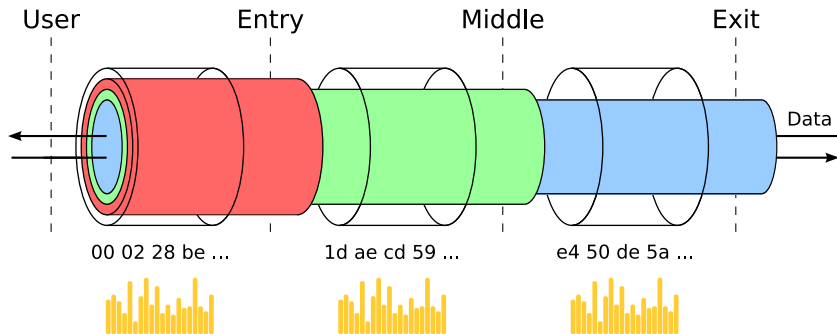
- Each relay in circuit removes/adds one encryption layer
- Separate encryption between relays
- Careful traffic analysis can correlate flows ...

Tor Cryptography



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Tor Hidden Services

Wikileaks - Wikileaks - Mozilla Firefox

http://gaddbiwdfatpglkq.onion/wiki/V

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Wikileaks helps everyone safely expose corruption in government and other organizations.

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- Ministers deny violence claim

Fresh Disclosures

- South African Mining Refuge Chaimbers Report 2007
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- DHS Schools: Lessons Learned 2007
- DHS Golden Guardian After Action Review 2004
- FBI Gang Related Activity in the US Armed Forces is

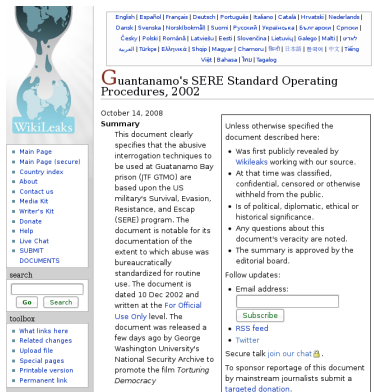
Top countries

- United States • United Kingdom
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http://gaddbiwdfatpglkq.onion/wiki/East_Timor:_Leaked_autopsy_report_shows_alleged_"coup"...

Tor Enabled

- Repository of sensitive documents
- Source anonymity strongly protected
- Mirrored and de-centralised
- Over 1.2M documents:
 - Classified documents
 - Corporate whistle-blowers' leaks
 - Political leaks
 - Censorship blacklists
 - Security breaches
 - ...



The screenshot shows the WikiLeaks website interface. At the top, there's a navigation bar with links in various languages. Below that, the main content area displays the title 'Guantanamo's SERE Standard Operating Procedures, 2002' and the date 'October 14, 2008'. A 'Summary' section follows, stating that the document describes abusive interrogation techniques used at Guantanamo Bay. To the left of the main content is a sidebar with a 'Main Page' link and a 'Documents' section. At the bottom, there's a search bar and a 'Subscribe' button.

English | Español | Français | Deutsch | Português | Italiano | Català | Hrvatski | Nederlands | Dansk | Svenska | Norsk bokmål | Suomi | Pycckий | नेपाली | Azərbaycan | Çince | Český | Polski | Română | Lietuvių | Eesti | Slovenčina | Latvinski | Galego | Maithilī | العربية | Türkçe | Azərbaycan | Shqip | Magyar | Chuvash | ភាសាខ្មែរ | বাংলা | हिन्दी | Tagalog | Vèit | Bahasa | Ӏnu | Tagalog

Guantanamo's SERE Standard Operating Procedures, 2002

October 14, 2008

Summary

This document clearly specifies that the abusive interrogation techniques to be used at Guantanamo Bay prison (JTF GTMO) are based upon the US military's Survival, Evasion, Resistance, and Escap (SERE) program. The document is notable for its documentation of the extent to which abuse was bureaucratically standardized for routine use. The document is dated 10 Dec 2002 and written at the [For Official Use Only](#) level. The document was released a few days ago by George Washington University's National Security Archive to promote the film *Torturing Democracy*.

Unless otherwise specified the document described here:

- Was first publicly revealed by [Wikileaks](#) working with our source.
- At that time was classified, confidential, censored or otherwise withheld from the public.
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- Any questions about this document's veracity are noted.
- The summary is approved by the editorial board.

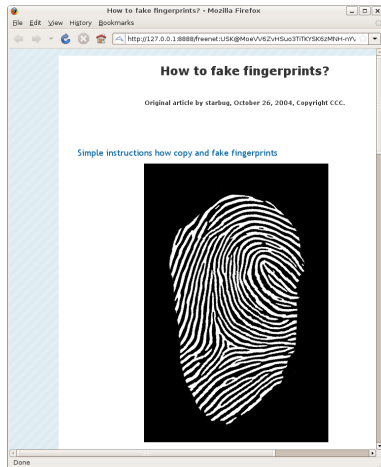
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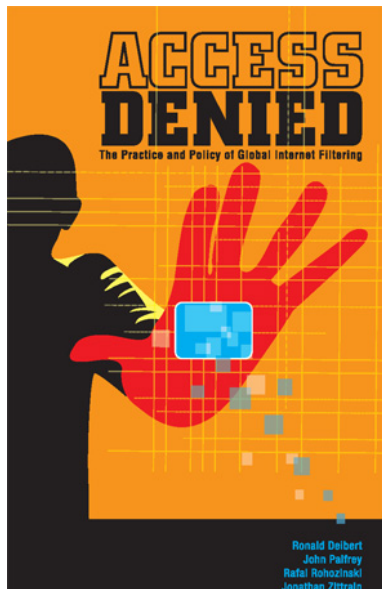
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- Parallel to World Wide Web
- Can create websites and post files
- Content collaboratively hosted
- Content encrypted and replicated
- Users don't know what they host!



Fight Censorship!

- Read Up
 - “Access Denied”:
opennet.net/accessdenied
 - Anonymity bibliography:
www.freehaven.net/anonbib/
- Participate, Donate, Volunteer
 - Tor
 - Psiphon
 - FreeNet
 - Wikileaks
 - Electronic Frontier Foundation
 - Open Net Initiative
 - Reporters Without Borders
- Experience it Yourself...
 - chinachannel.hk



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 - FreeNet
 - Wikileaks
 - Electronic Frontier Foundation
 - Open Net Initiative
 - Reporters Without Borders
- Experience it Yourself...
 - chinachannel.hk



- Censorship resistance often illegal
- Technologically impossible to block bad uses
 - Even with a definition of 'bad'
- Deployed systems commonly used to break laws

Nature knows no indecencies, man invents them

Ideas won't go to jail

Information wants to be free...