

# Allied Media Conference

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**TorProject.org**

George Orwell

nineteen

eighty-four

a novel

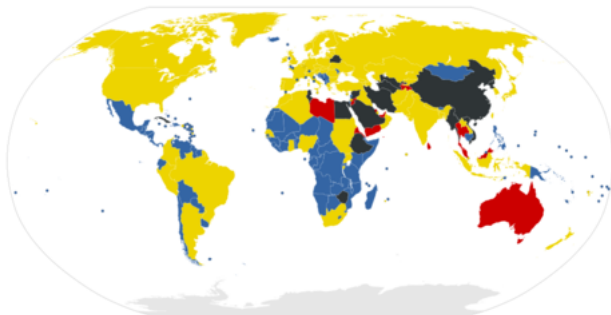
## George Orwell was an optimist



*Who controls the past, controls the future: who controls the present controls the past*

— George Orwell, *Nineteen Eighty Four*, 1949

# Internet Censorship Is Everywhere



Internet censorship map.

**Blue: No censorship**

Yellow: Some censorship

Red: Under surveillance

Black: Internet black holes (most heavily censored nations)

# Internet Censorship Is Everywhere

Dear User,

تخدم،

**Sorry, the requested page is  
unavailable.**

**الموقع المطلوب غير متاح.**

If you believe the requested page should not be  
blocked please [click here](#).

ت ترى أن هذه الصفحة ينبغي أن لا  
تُحجب تفضل [بالضغط هنا](#).

For more information about internet service in Saudi Arabia, please click  
here: [www.internet.gov.sa](http://www.internet.gov.sa)

معلومات عن خدمة الإنترنت في المملكة العربية السعودية،  
ممكنك زيارة الموقع التالي: [www.internet.gov.sa](http://www.internet.gov.sa)

# Internet Censorship Is Everywhere



# Internet Censorship Is Everywhere



This domain name has been seized by ICE - Homeland Security Investigations, pursuant to a seizure warrant issued by a United States District Court under the authority of 18 U.S.C. §§ 981 and 2323.

*Willful copyright infringement is a federal crime that carries penalties for first time offenders of up to five years in federal prison, a \$250,000 fine, forfeiture and restitution (17 U.S.C § 506, 18 U.S.C. § 2319). Intentionally and knowingly trafficking in counterfeit goods is a federal crime that carries penalties for first time offenders of up to ten years in federal prison, a \$2,000,000 fine, forfeiture and restitution (18 U.S.C. § 2320).*

## Censoring the 'net is all the rage





## Censoring the 'net is all the rage

“ *more than 700 pornographic and copyright infringing websites have been shut down* ”

# Censoring the 'net is all the rage

JUNE 22, 2011 5:27 PM PDT

## Exclusive: Top ISPs poised to adopt graduated response to piracy

by [Greg Sandoval](#)

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Some of the country's largest Internet service providers are poised to leap into the antipiracy fight in a significant way.

After years of negotiations, a group of bandwidth providers that includes AT&T, Comcast, and Verizon are closer than ever to striking a deal with media and entertainment companies that would call for them to establish new and tougher punishments for customers who refuse to stop using their networks to pirate films, music and other intellectual property, multiple sources told CNET.

The sources cautioned that a final agreement has yet to be signed and that the partnership could still unravel but added that at this point a deal is within reach and is on track to be unveiled sometime next month.



You can't fool all of the  
people all of the time,  
but you can try.

It's called advertising.

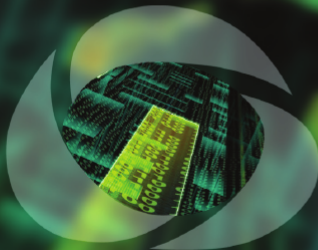
In the future  
everyone will be  
anonymous  
for 15 minutes



I want to have  
cake and  
And I want you  
think I lost weight

Internet Surveillance is getting more advanced

If You Can See It  
You Can **Monetize It**



Evolved DPI – See what's flowing through your network

# Internet Surveillance is getting more advanced

```
|0.541 | | https > 50936 [SYN,
| | (50936) <-----> (443)
|0.541 | | 50936 > https [ACK]
| | (50936) -----> (443)
|0.542 | | Client Hello
| | (50936) -----> (443)
|1.030 | | https > 50936 [ACK]
| | (50936) <-----> (443)
|1.033 | | Server Hello,
| | (50936) <-----> (443)
|1.124 | | 50936 > https [ACK]
| | (50936) -----> (443)
|2.079 | | [TCP Previous segme
| | (50936) <-----> (443)
|2.079 | | [TCP Dup ACK 12#1]
| | (50936) -----> (443)
|5.563 | | [TCP Retransmission
| | (50936) <-----> (443)
|5.563 | | 50936 > https [ACK]
| | (50936) -----> (443)
|6.008 | | [TCP Retransmission
| | (50936) <-----> (443)
|6.008 | | 50936 > https [ACK]
| | (50936) -----> (443)
|16.025 | | Client Key Exchange
| | (50936) -----> (443)
|17.533 | | [TCP Retransmission
| | (50936) -----> (443)
|20.735 | | [TCP Retransmission
| | (50936) -----> (443)
|21.127 | | [TCP Previous segme
| | (50936) <-----> (443)
|26.447 | | 50936 > https [FIN,
| | (50936) -----> (443)
|26.743 | | Encrypted Alert
| | (50936) <-----> (443)
|26.743 | | 50936 > https [RST]
| | (50936) -----> (443)
```

# Internet Surveillance is getting more advanced

## 'Comodo Hacker' Says He Acted Alone

**The plot thickens: In an effort to back up his claims, alleged hacker dumps apparent evidence of pilfered database from breached Comodo reseller, as well as Mozilla add-on site certificate**

By [Kelly Jackson Higgins](#) [InformationWeek](#)

April 09, 2011 12:00 AM

Comodo, a website certificate authority, revealed that nine SSL certificates were issued for fraudulent websites posing as domains for high-profile sites. Security researchers hope the incident will call attention to a certificate process they say is riddled with holes.

# Internet Surveillance is getting more advanced

## US company 'helped' Egypt block web

**Egypt's crackdown on web users allegedly aided by US company's product.**

Last Modified: 06 Feb 2011 03:23 GMT



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When Egypt's uprising began nearly two weeks ago, there was a near-total internet blackout.

But exactly how was access cut off?

An American advocacy group called Free Press says it has uncovered a link to a California-based technology company that allegedly sold the Egyptian government equipment allowing it to track online activity.

Al Jazeera's Rob Reynolds reports.

Internet Surveillance is getting more advanced







## The Tor Project, Inc.

501(c)(3) non-profit organization dedicated to the research and development of technologies for online anonymity and privacy



Tor hides communication patterns by relaying data through volunteer servers

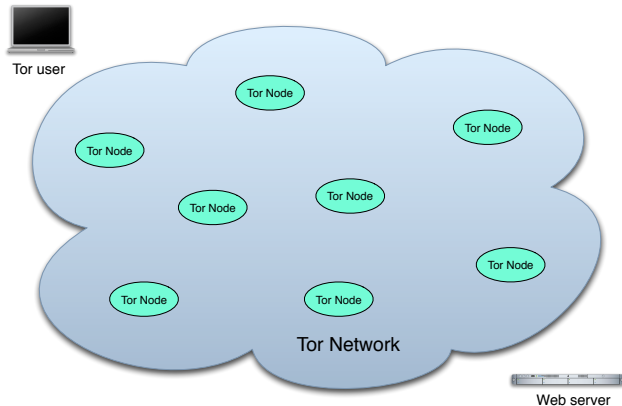
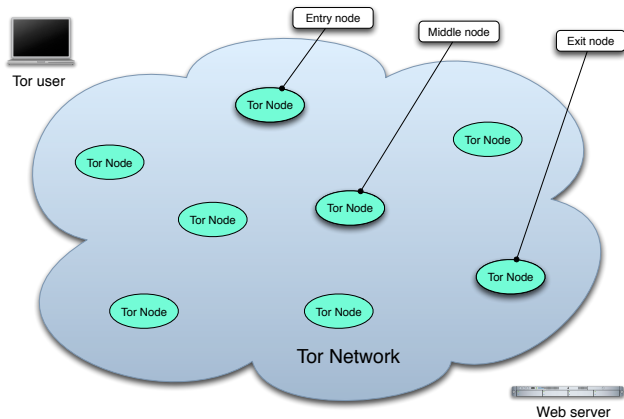


Diagram: Robert Watson

# Tor hides communication patterns by relaying data through volunteer servers



# Tor hides communication patterns by relaying data through volunteer servers

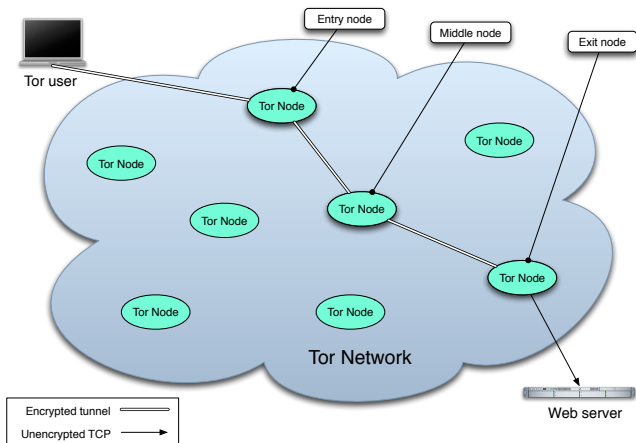
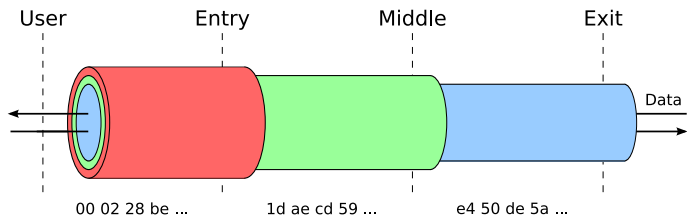


Diagram: Robert Watson

# Tor hides communication patterns by relaying data through volunteer servers



Thanks!

Visit <https://www.torproject.org/> for more information, links, and ideas.

## Copyright & Sources

- ▶ Internet censorship is everywhere, first image: Reporters without Borders, <http://www.rsf.org>
- ▶ censoring the 'net is all the rage, <http://thenextweb.com/asia/2011/06/08/china-increases-internet-control-takes-down-hundreds-of-websites/>
- ▶ censoring the 'net is all the rage, [http://news.cnet.com/8301-31001\\_3-20073522-261/exclusive-top-isps-poised-to-adopt-graduated-response-to-piracy/](http://news.cnet.com/8301-31001_3-20073522-261/exclusive-top-isps-poised-to-adopt-graduated-response-to-piracy/)
- ▶ Internet surveillance, second image: <http://www.informationweek.com/news/security/attacks/229400850>
- ▶ Internet surveillance, third image: Al Jazeera, February 2011
- ▶ spring is in the air, Paco Pomet, <http://pacopomet.wordpress.com/>