

#### Welcome to

## Værktøjer til beskyttelse af internettrafik

Beskyt dig selv

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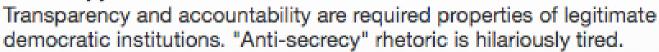
http://www.solidonetworks.com

## Democracy now: Why do we bother?





Jacob Appelbaum @icerror



In a democracy we need the citizens with freedom that can act without constant surveillance

Democracy requires that we can actively select which personal data to give up and to whom

Cryptography is peaceful protest against blanket surveillance

## Why think of security?



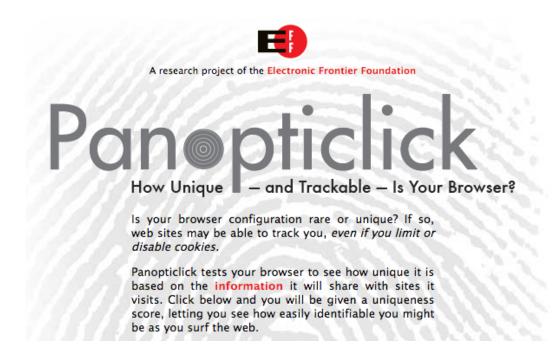


Privacy is necessary for an open society in the electronic age. Privacy is not secrecy. A private matter is something one doesn't want the whole world to know, but a secret matter is something one doesn't want anybody to know. Privacy is the power to selectively reveal oneself to the world. A Cypherpunk's Manifesto by Eric Hughes, 1993

Copied from https://cryptoparty.org/wiki/CryptoParty

## Spor du sætter på internettet





Vi bruger allesammen browsere, email klienter og andre programmer

Mange programmer er nemme at genkende og mange sender i klartekst - uden kryptering

Source: https://panopticlick.eff.org/

#### **Chrome**



Browser Characteristic	bits of identifying information	one in x browsers have this value	value
User Agent	13.65	12853.36	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_9_2) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/33.0.1750.146 Safari/537.36
HTTP_ACCEPT Headers	21.91+	3945981	text/html, "/" gzlp,deflate,sdch en-US,en;q=0.8,cs;q=0.6,da;q=0.4
Browser Plugin Details	21.91+	3945981	Plugin 0: Default Browser Helper; Provides information about the default web browser; Default Browser, application/apple-default-browser;). Plugin 1: Google Talk Plugin Video Accelerator; Google Talk Plugin Video Accelerator (soogle Talk Plugin Video Accelerator); Order Accelerator (version:0.1.44.28; nogtpo3dautopi.gn.plugin; (Google Talk Plugin Video Renderer; application/ord; o1d). Plugin 3: Google Talk Plugin Video Renderer; Version 5.1.7.17873; o1dbrowserplugin.plugin; (Google Talk Plugin Video Renderer; application/o1d; o1d). Plugin 3: Google Talk Plugin; Version 5.1.7.17873; o1dbrowserplugin.plugin; (Google Voice and video chart; application/o1d; o1d). Plugin 3: Google Talk Plugin; Version 5.1.7.17873; oogletalk/browserplugin.plugin; (Google voice and video chart; application/o1d; o1d). Plugin 3: Googletalk/browserplugin.plugin; (Google voice and video chart; application/o1d; o1d). Plugin 6: QuickTime Plugin 6: QuickTime Plugin; (Native Client Executable; application/x-nact;) (Portable Native Client Executable; application/x-pnact;). Plugin 6: QuickTime Plugin; (Native Client Executable; application/x-nact;) (Portable Native Client Executable; application/x-pnact;). Plugin 6: QuickTime Plugin; (Native Client Executable; application/x-nact;) (Portable Native Client Executable; application/x-pnact;). Plugin 6: QuickTime Plugin; (Native Client Executable; application/x-mactive (Native All Audio) and audio (All); (Native Client Executable; application/x-mactive (Native All); (Native Client Executable; audio/x-mactive (Native All); (Native Client Executable; All); (Native Client Executable; All); (Native Client Executable; All); (Native Client Executable;

#### Panopticlick Chrome plugins

#### Safari



Browser Characteristic	bits of identifying information	one in x browsers have this value	value
User Agent	12.56	6033.68	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_9_2) AppleWebKit/537.74.9 (KHTML, like Gecko) Version/7.0.2 Safari/537.74.9
HTTP_ACCEPT Headers	3.81	14	text/html, "/" gzip, deflate en-us
Browser Plugin Details	21.91+	3946029	Plugin C. Citrix Online Web Deployment Plugin 1. 0.0.34; Plugin that detects installed Citrix Online products (visit www.citrixonline.com); CitrixOnlineApple.default-Drowser; J. Plugin plugin; (Citrix OnlineApple.default-Drowser; J. Plugin plugin; (Citrix OnlineApple.default-Drowser; J. Plugin plugin; (Fix Network Access plugin; application/sepple.default-Drowser; J. Plugin 2: F5 SSL VPN Plugin; F5 Network Access plugin; applications.dev.dev.dev.dev.dev.dev.dev.dev.dev.dev

## Panopticlick Safari plugins - Garmin plugins!

## **Profiling**



Derudover cookies

IP-adressen du kommer fra og andre parametre fra TCP/IP - kan ofte validere/bestemme OS

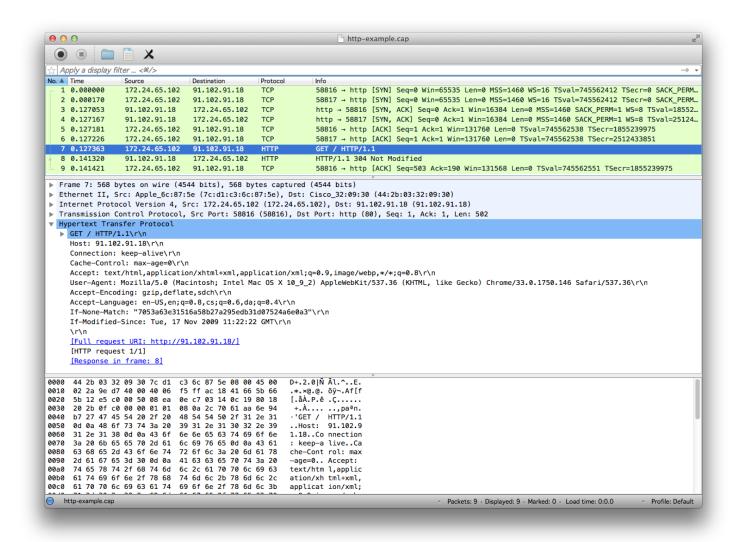
Har du IPv6

Tidspunkterne for login

Skrivestil

#### Dive into the bitstream





Anyone in the network path can sniff this!

## **Anonymous access to internet - Tor project**



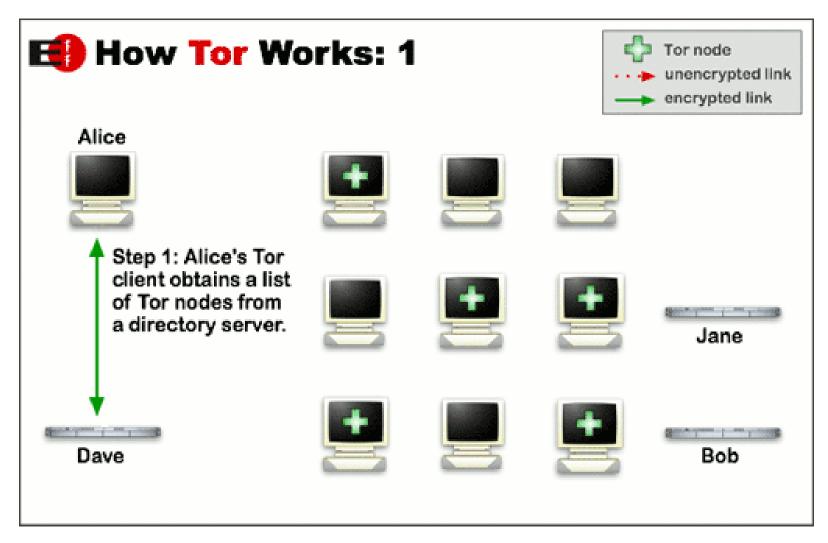


https://www.torproject.org/

Der findes alternativer, men Tor er mest kendt

#### Tor project - how it works 1

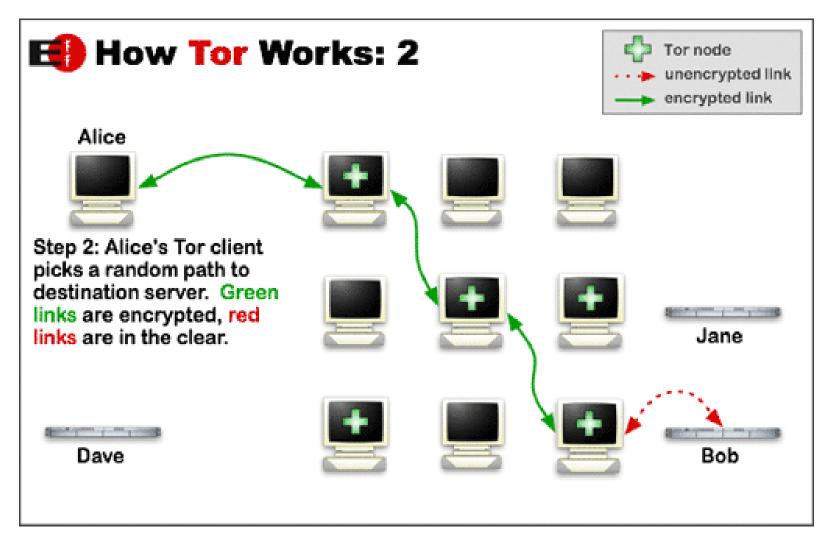




pictures from https://www.torproject.org/about/overview.html.en

#### Tor project - how it works 2

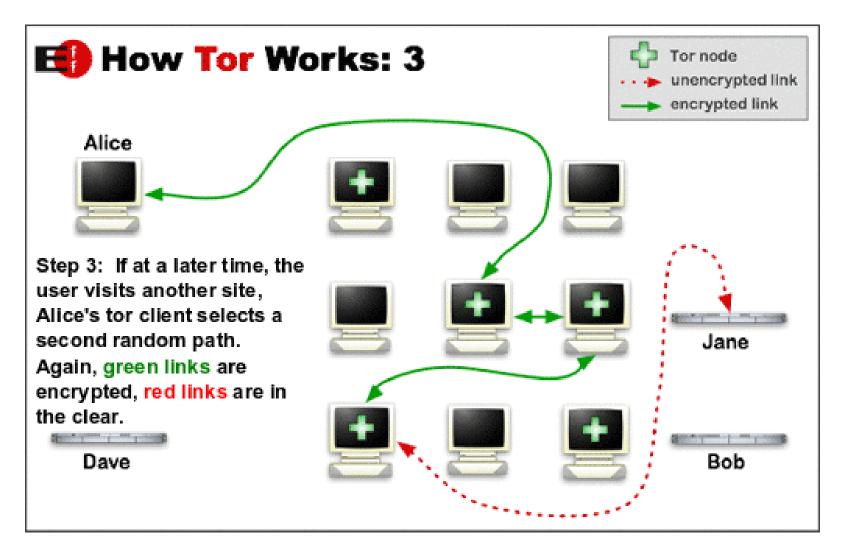




pictures from https://www.torproject.org/about/overview.html.en

#### Tor project - how it works 3





pictures from https://www.torproject.org/about/overview.html.en

## **Brug af TOR - demo**





#### **Torbrowser - sample site**





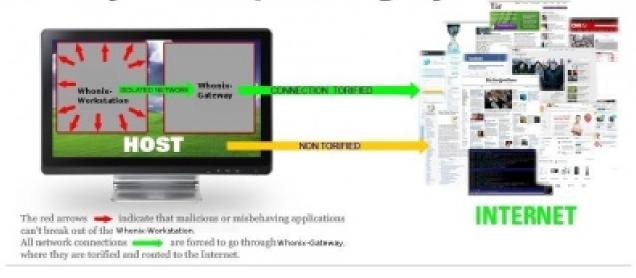
#### onion er Tor adresser - hidden sites

Den viste side er SecureDrop hos Radio24syv http://www.radio24syv.dk/dig-og-radio24syv/securedrop/

#### Whonix - Tor to the max!



## Whonix Anonymous Operating System



Whonix is an operating system focused on anonymity, privacy and security. It's based on the Tor anonymity network[5], Debian GNU/Linux[6] and security by isolation. DNS leaks are impossible, and not even malware with root privileges can find out the user's real IP. https://www.whonix.org/

Torbrowser er godt, Whonix giver lidt ekstra sikkerhed

#### Flere browsere









- Flere browsere: en til facebook, en til netbank
- Sikre indstillinger og NoScripts til generel surfing
- Løsere indstillinger til Netflix, Facebook m.fl.
- Husk at installere gode plugins som HTTPS Everywhere, NoScript, CertPatrol m.fl.

#### **HTTPS Everywhere**





HTTPS Everywhere is a Firefox extension produced as a collaboration between The Tor Project and the Electronic Frontier Foundation. It encrypts your communications with a number of major websites.

http://www.eff.org/https-everywhere

Also in Chrome web store!

#### **NoScript and NotScripts**





#### NotScripts for Chrome

A clever extension that provides a high degree of 'NoScript' like control of javascript, iframes, and plugins on Google Chrome.

Du tillader kun scripts på de sider hvor det er nødvendigt.

Hint: du kan undgå mange reklamer, og måske springe foran i køsystemer ©

#### Secure your mobile





Orbot: **Proxy With Tor** 



Orweb:
Private Web Browser



ChatSecure:
Private and Secure Messaging



ObscuraCam:
The Privacy Camera



Ostel: Encrypted Phone Calls



CSipSimple: Encrypted Voice Over IP (VOIP)



K-9 and APG: Encrypted E-mail



KeySync: Syncing Trusted Identities



TextSecure: Short Messaging Service (SMS)



Pixelknot: Hidden Messages

Dont forget your mobile platforms https://guardianproject.info/

## Spørgsmål?



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http://www.solidonetworks.com

I er altid velkomne til at sende spørgsmål på e-mail

## VikingScan.org - free portscanning



