Freedom of Expression, Censorship, & The Internet

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April 7, 2010





Universal Declaration of Human Rights

Article 19

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 20

Everyone has the right to freedom of peaceful assembly and association.

The Internet facilitates centralization

- Centralized systems work better: cheaper, more versatile, and more efficient
- By eliminating distance, the Internet allows greater centralization
- Centralized archiving of physical newspapers is awkward, but online archiving works well
- This makes life easier for readers, and censors too
- Many libraries are now dropping archiving of paper in favor of electronic subscriptions

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George Orwell was an optimist

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

- George Orwell, Nineteen Eighty Four, 1949

The re-writing of history is now much more efficient than when George Orwell imagined armies of Winston Smiths cutting holes in newspaper archives

Online archives are easily censored

coinciding as it does with his plans to pecome a big player in the City Reuben and his elder brother Simon and David, 64, may David launched a website last together be worth 52.1 billion,

been victims of organised crime one of the reasons they scaled tions about Simon's business down their activities in Russia.

makes some unflattering allegamethods. Anglo, once part of independent petrol retailer with

the company's chances of acing Save, which he wanted to buy Kazakhstan, which had confishimself. in the event, Save was not Spain's Repsol oil group, was an sold to either Anglo or Reuben. Neither side would comment on attempt by gangland interests to month announcing their inten- according to a recent estimate. about 45 service. stations in the case last week, but Reuben is appropriate their stake in Russia's

case against the government of They also went to court to fight an came from legitimate sources Simon Reuben's next legal bet tle - against Anglo Petroleum - k unlikely to come to trial hefore next year. But he is clearly not afraid of a fight.



Lord Lamont has kept some odd company since leaving politics. Now a company he chairs faces collapse. Jamie Doward reports

HE FAMOUSLY lathered fallen by the wayside while himself while singing 'Je ne others have landed him in regrette rien', when Britain; deep controversy, araising was humiliatingly jettisoned ?? questions over his judgment. from the Buropean Exchange . Lamont, 61, is battling for Rade Mechanism, but it is debatable whether these days , paniels be chars hovers on the Lord Lamoet can affect such to risk of collapse Shares in the Exchequer, has proved pended by the Stock Exchange elusive for Norman Stewart's last Tuesday after it failed to

The Observe

Skills for Business is launching two Sector **Skills Councils To find** out more about how employers are responding to the UK's skills crisis. see next Sunday's Observer **Business Section**

he was involved with - Cypeotex - was floated. Why Lamont - who joined investment bank NM Rothschild after leaving the Cabi-Lore Lamost can an exist such i ornex of compose scarses in schuld after leaving the Case-a cherry flogstellion "Life". Galilloo Throwstens, the net ended up as chairman of "The cortus sting business: investment company set up a tiny floated company is a corrector, which he is of his ty the controversial businesses open to question. But the heart, following his ignoming, man and former pipe fitter " chance to share in its poten-tors outsing as Chancellor of "Paul Davidson, were base, tially herative future must have been a consideration. Dulike some of his contempo-Hugheon Lamont. Several of publish its annual report. In Cheshure-based from ont - who declined to return calls - is not hughly weakly. calls - is not hugely wealthy. He left Rothschild in 1996 and several other companies he

> ties. The Taiwan Investment. Trust ECIT Finance, Equity Consort and First Philippine Sacurities all ended up in lio-A number of other companies, on whose board Lamont sits, are not capable of delivering him the sort of salary Britain's rich list. associated with Tory gran disr with a near anonymous board of the Indonesian

But Galileo's board believed it had potential to pro-The company boosted that it tet. As Sir Anthony Joliffe. one of the non-executive directors, put it when Lamont was appointed in July last

gling to work out whether our views of the company's lileo – whose shares have prospects and opportunities. crashed from 20p to 1p - can The company had great tinue as a going concern hopes for its first investment. It is the latest setback for Fluid Conditioning Systems, which had developed replen riety last year when the Fin. ishable oil solutions for the automotive industry, Another into a spread bet he took out tific Detectors, which made shortly before another firm > analytical equipment for use in the pharmaceutical and By the end of last year Gall

leo was predicting that three of its investments would float quarter of 2002. But the triple score never harnened nost pered the chances of getting the companies away at a rea somable price, 27adra a

Portunately for Lamont, he has other business interests to fall back on He is a consultant to Rotch: the Mayfairbased property company run joined experienced difficul Robert and Vincent 7chenguiz Rotch is reputed to preside over a property portfolio valued at £4bn and is also the anted pubs giant Pubmaster. The brothers - who eschew tity - are rainked 90th in Lamont is also a director of

profile, and sitting on the pany that provides reinsurance products to the life Fund, an investment trust, is insurance industry and a Serious Fraud Squad invest unlikely to be a huge moneywealth management services Then there is the director-

Chamber of Commerce, Lamont is director of the British merce and organised several dinners to help advance basiness relations between the One dinner - in honour of dees. Clarges Energy is a tid- Scottish Annuity & Life Hold- Romanian president Ion Illi ings, the Bermuda-based com- escu - was attended by mil

linnaire metals trader Viren dra Rastogi, now the subject of tigation, Another - for the to high net worth individuals. Romanian Prime Minister and attended by Trade secretary ship of Balli Group, the metals Patricia Hewitt - was spon-trader headouartered in Lon-sored by Mittal.

don, which has huge interests Lamont's appeal to power. Goest attendees have inc-in Romania. Balli co-owns ful businessmen must lie at juded Richard Nixtee, Henry Sidex International with least in part in his extension LNM, the steel group whose political contacts. He is chairoffshore parent company is man of a little-known but and King Hussein of Jordan. run by controversial millionhugely influential right-wing Comparisons with the highly aire Lakshmi Mittal. His bid body called La Cercle. Toun- secretive Bilderberg Group Participations Bancaires et bath again

itself as an 'informal group of . Le Cercle which reinforce European and American pro-lessionals - politicians, ret-business relationship, that 'ired ambassadors, former with Iraqi billionaire Nadhmi generals, lawyers and active ' Auchi, who was arrested in

Lamont could well look back on last week as the point his fortunes took another turn for the worse

shipping, publishing and who is known to have all. trading companies' ended a number of Le Cercle meetings, made millions selling Italian warships to the Kissinger, the Sultan of Iraqi regime in 1980. Lamont is a director of one Oman Bomania's Illiesco of Auchi's biggest companies, Compagnie Internationale de

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party activist who is their Government on Irac 2 w corruption trial involving of giant TotalFinaElf is expen ted to hear allegations that h ninelled Citin com from the oil company to buy refinery in Kuwalt, Auchi has

nurticinants in hanking oil. Britain last Monday, Auchi Lamont could well look bach on last week as the point his fortunes took another turn for the worse. " ? . . It may be some time before the peer who pocketed thou sands of pounds from a Cheshire pipe-fitter and an

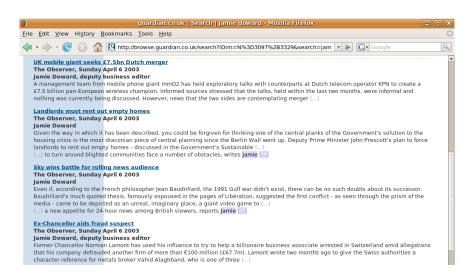
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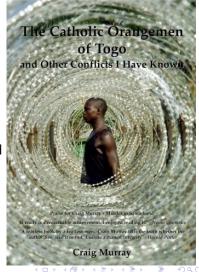
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Online archives are easily censored



The Internet eases publication too

- "The Catholic Orangemen of Togo", by Craig Murray, was dropped by its publisher due to libel threats
- Even the Cambridge University Press pulped a book, "Alms for Jihad" by J. Millard Burr and Robert O. Collins, following legal action
- The lack of support from a publisher and network of book shops would previously be devastating
- However, the Internet facilitates self-publishing and marketing



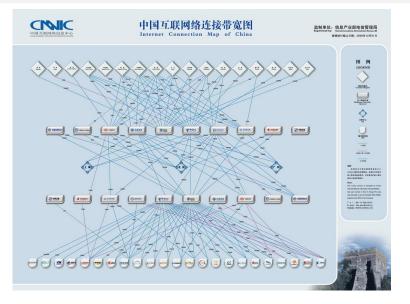
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Internet architecture allows censorship



What is being blocked, and why

- According to the Open Net Initiative, at least 70 countries filter the Internet in some way; from Asia, to Europe, to the Americas.
- The types of material censored varied depending on country, e.g.:
 - Human Rights (blocked in China)
 - Religion (blocked in Saudi Arabia, UAE, Iran, Bahrain)
 - Pornography (blocked in Saudi Arabia, UAE, Iran, Bahrain, Singapore, Burma, ...)
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			4.He was to enter Jerusalem in triumph
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5.He was to be rejected by his own			
			6.He was to be betrayed by one of his
followers			
7.He was to be tried and condemned			
8. He was to be silent before his accusers			
9. He was to be struck and spat on by his			
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Search Engine results are censored



Searching for "Tiananmen Square" on Google.com and Google.cn

Chilling effects: self-censorship through fear, intimidation, and punishment

People can be intimidated into not testing rules through fear of detection and retribution



"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 Amer (sentenced to four years of prison in Egypt)

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Resisting Internet censorship

66 The Net interprets censorship as damage and routes around it.

- John Gilmore, 1993

No longer true on a technical level: censorship is in the routers.

Remains true on a social level: when material is censored, people distribute copies and draw attention to them

But what if people are too afraid to do this?

Freedom of speech and anonymity

United States Constitution: 1st Amendment

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

McIntyre v. Ohio Elections Commission

Protections for anonymous speech are vital to democratic discourse. Allowing dissenters to shield their identities frees them to express critical, minority views ... Anonymity is a shield from the tyranny of the majority ... It thus exemplifies the purpose behind the Bill of Rights, and of the First Amendment in particular

Twitter in Iran: Good.

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Iran Protests: Twitter, the Medium of the Movement

By LEV GROSSMAN Wednesday, Jun. 17, 2009

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 Share
 The U.S. State Department doesn't usually take an interest in the maintenance schedules of dotcom

 start-ups. But over the weekend, officials there reached out to

 Twitter and asked them to delay a network upgrade that was scheduled for Monday night. The reason? To protect the interests of



Twitter in USA: Bad.

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FBI Raids Queens Home in G20 Protest Twitter Crackdown



AP Photo/Matt Rourke

of crime; he's currently out on bail.

That's right, a Twitter crackdown. A lawyer for Jackson Heights social worker Elliot Madison, 41, says that the feds searched his client's house for 16 hours on Thursday after Madison was arrested on September 24th at a Pittsburgh hotel room with another man. What were they up to? Sitting at laptops sending Twitter messages advising <u>G20 demonstrators</u> about riot police activity in the streets. And yet *real* Twitter threats like <u>Lindsay Lohan</u> and <u>Courtney Love</u> remain at large.

Madison, a self-described anarchist, was in Pittsburgh volunteering for the <u>Tin Can Comms Collective</u>, a group that uses Twitter to send mass text messages during protests describing events observed on the streets or over police scanners; stuff like "SWAT teams rolling down 5th Ave." Tin Can was active during the <u>St. Paul RNC protests</u>, and the authorities are now on to them. Madison was charged with hindering apprehension or prosecution, criminal use of a communication facility and possession of instruments

Internet surveillance is pervasive

- Conventional surveillance methods had to be targeted
- Internet censorship is capable of monitoring everyone, all of the time
- Governments are increasing monitoring: SORM (Russia), Golden Shield (China), Data Retention Directive (EU), and Interception Modernisation Programme (UK), Warrantless Wiretapping (USA)
- 1 in 7 East German citizens worked for the Stasi. Today we can achieve the same results with a fraction of the cost



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Traffic data surveillance

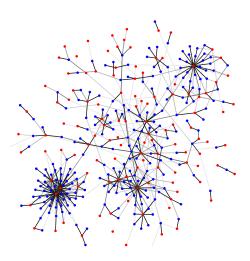
- Traffic data (who talks to whom, how often and for how long) is the core of intelligence capabilities
- This information is cheaper to record and store, compared to full content
- Because it can be easily processed by computer, data mining techniques can be used to understand social structures

No government of any colour is to be trusted with such a roadmap to our souls

— Sir Ken Macdonald, former director of public prosecutions, on the UK Interception Modernisation Program

Importantly, information on social networks can be derived

- Communities
- People



From "The Economics of Mass Surveillance" by George Danezis and Bettina Wittneben

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The Transparent Society

- David Brin proposed that in a world of pervasive surveillance, balance could be maintained by allowing everyone to monitor everyone else
- Bruce Schneier retorted that surveillance amplifies existing powers
- Many countries restrict anonymous speech (e.g. Germany and China)
- It is easy for those in power to call on the weak to link their names to opinions



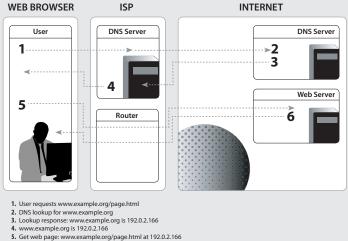
Photo: Manos Simonides

Censorship resistance systems

- Software to resist censorship should
 - have a diverse set of users
 - work where you are without special steps
 - be sustainable (what if the company goes broke?)
 - be decentralized (swapping censors doesn't help you)
 - protect you by default
 - have accessible standards and published designs (black box vs. glass box)
 - be fast enough that you'll use it daily
 - doesn't promise perfect everything including a fully encrypted Internet
- These properties should be maintained even if the censorship resistance system is partially compromised

- When a country's government controls international connectivity, they can block requests for banned websites and destinations
- There are a number of different approaches (DNS blocking, IP address blocking, etc.)
- Software may be produced in-country, but often is an adapted commercial product
- These companies not only make the software, but provide a continuously updated list of websites to be blocked

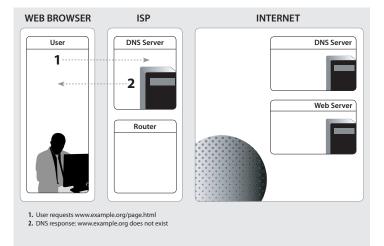
Normal web browsing



6. Here is www.example.org/page.html

↓ □ → ↓ Diagram: Jane Gowan

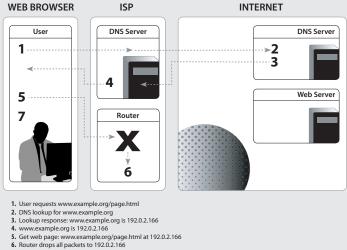
DNS tampering



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IP blocking

↓ □ → ↓ ⊕ → Diagram: Jane Gowan



7. Browser concludes that www.example.org is inaccessible

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- Easy and cheap to implement
- Blocks at domain name granularity over blocks protocols, web pages
- Trivial to bypass

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- Proxy blocking
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- Hybrid blocking IP based redirection to proxy
 - Tricky to get right, but cheap
 - Has some vulnerabilities
 - Blocks at webpage level low over-blocking

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- Ordinary people
 - To avoid personal information being sold to marketers
 - Protect themselves when researching sensitive topics

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- Businesses
 - To observe their competition and build anonymous collaborations

- People have to hide in a crowd of other people ("anonymity loves company")
- The goal of the system is to make all users look as similar as possible, to give a bigger crowd
- Hide who is communicating with whom
- Layered encryption and random delays hide correlation between input traffic and output traffic

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- Now designed to resist censorship too (hides whether someone is using the system at all)
- Centralized directory authorities publish a list of all servers; client doesn't trust the network by design



Tor hides communication patterns by relaying data through volunteer servers

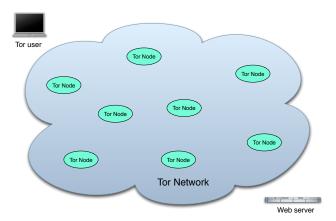


Diagram: Robert Watson

Tor hides communication patterns by relaying data through volunteer servers

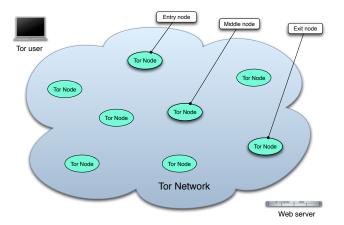


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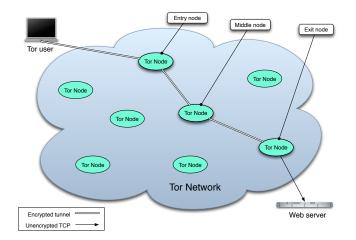
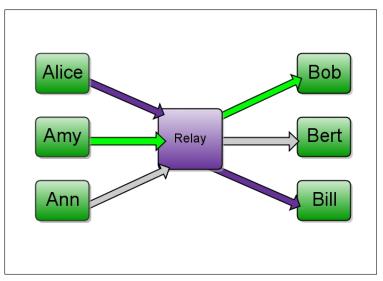


Diagram: Robert Watson

Tor hidden services allow censorship resistant services

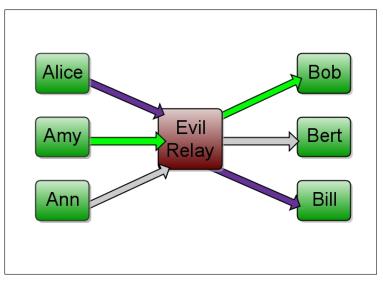


How is Tor different from other systems?



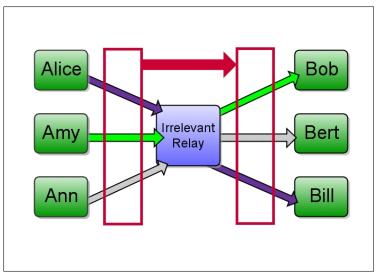
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How is Tor different from other systems?



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Limitations of censorship resistance

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- Censorship resistance is thought controversial especially by the censors
- There is something for everyone to like, and something for everyone to dislike, going on with censorship resistance systems
- Bad people do use them to do bad things (for many different definitions of bad people)
- It is impossible to block bad uses, even if we could come up with a common definition of bad content
- The systems are not perfect, so it is possible some people will be caught

Conclusions

- The Internet and centralisation can both improve and harm freedom of speech
- Slogans regarding the borderless nature and inherent freedoms of the Internet are frequently wrong
- Technical details matter: how a system is implemented can make a radical difference
- Technologies can be used to resist censorship and improve privacy
- However, policies must be changed too and pressure is needed on legislators



One Version of the Future

66 I'd like to change the design of the Internet by introducing regulation–Internet passports, Internet police and international agreement–about following Internet standards. And if some countries don't agree with or don't pay attention to the agreement, just cut them off.

- Eugene Kaspersky, Co-Founder & CEO of Kaspersky Labs

A better version of the future

Internet Access as a Human Right

We think it's something you cannot live without in modern society. Like banking services or water or electricity, you need an Internet connection

- Laura Vilkkonen, Ministry of Transport and Communications, Finland

Tor Project's Mission

66 We remain committed to defending online privacy and anonymity as a human right.

How to get there

- Increased funding of research and development for privacy, circumvention, and anti-censorship technologies
- Policy and Legal frameworks for free access, free speech, and anonymity

Credits

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- Thank you to Steven J. Murdoch, http://www.cl.cam.ac.uk/users/sjm217/, for the research and basis for this presentation.
- Photographer and Diagram credits as listed throughout the presentation.