

Big Brother 2.0

Censorship, privacy and Internet

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A lil' bit of trollin' (for starters)

- In times of old, it was OK to
 - build hideouts
 - catch some fish
 - go adventuring
 - have a gang/team
 - get some scars
 - say a bad word or two
- Today: HEEEEELLPP!!
 - attack on nature!
 - not vegan at all!
 - violence!
 - antisocial behaviour!
 - self-harm!
 - political incorrectness!
- ... and then people ask where the snowflakes come from
- Produced by the society – including online

Why is it important

- Access to information is a condition for being a full citizen
- Limitations put it under question
- Information ==> power ==> money
- Suppression of dissent <==> democracy
- But recently has been most notable in the “democratic West”, especially in the form of self-censorship or ‘soft censorship’ (“hey, no decent person thinks like THAT!”)
- Angela Merkel in November 2019: freedom of expression has cost and limits (<https://reclaimthenet.org/angela-merkel-limit-freedom-of-expression/>)

A shift in the West

- Freedom of speech used to be promoted by the political left (labour, civil rights and free speech movements, hippies, Martin Luther King etc) – censorship used to be backed by right-conservatives (“decent families”)
- Today, we have clear tendency towards the opposite – censorship is promoted by the “formerly oppressed” (Neo-Marxists, ‘antifascists’, 3rd-wave feminists etc etc); there is a clear parallel with historical revolutions (which usually end in mass murders and dictatorships)
- Probably the best example: the same American universities that once backed the Free Speech Movement (e.g. UC Berkeley)

The 'post-truth' media

- The (ongoing) rise of social media:
 - fast and handy
 - networks and echo chambers
 - allows following of very different sources
 - also allows increasingly complex counterfeiting (*deepfake*)
- The (ongoing) fall of traditional media:
 - increase of obviously ordered content
 - choosing news (and also people) by political inclination
 - increase of clickbait (speed vs quality)
 - Increasing lack of competent writers

It is serious: education and science

- UC Berkeley was already mentioned
- “Trigger warnings”, “safe spaces” and cancelling the ‘heretics’
- A logical consequence: fundamental changes in science
- Taboo topics and “hey, you cannot ask this question!” (on the pain of cancelling). Comparison: Galileo
- A practical consequence: see the topic of professionalism earlier
- “My (lawyer, dentist, car tech, security detail) has got proper worldview and graduated from a correct school!” (...but is not that skilled at work)

“There is nothing new under the sun” (Ecclesiastes)

- Censorship has been tracked back to Ancient Egypt
- Classical Greek and Roman civilizations had it too
- Mentioned in the Bible (persecution of prophets)
- *Index librorum prohibitorum*
- The USSR outlawed all religious literature
- ...

America the Beautiful(?)

- On the one hand, strives to be a model democracy
- On the other hand, has a history of hard censorship
- Comstock Act (*Federal Anti-Obscenity Act*) - signed in 1873, has not been voided yet
 - Voltaire, Boccaccio, Chaucer....
 - *1001 Nights* (was considered “youth literature” in the USSR!)
 - *Dr Dolittle* by Hugh Lofting
 - *Uncle Tom's Cabin* by Harriet Beecher Stowe
 - *Tom Sawyer* and *Huckleberry Finn* by Mark Twain

Online censorship

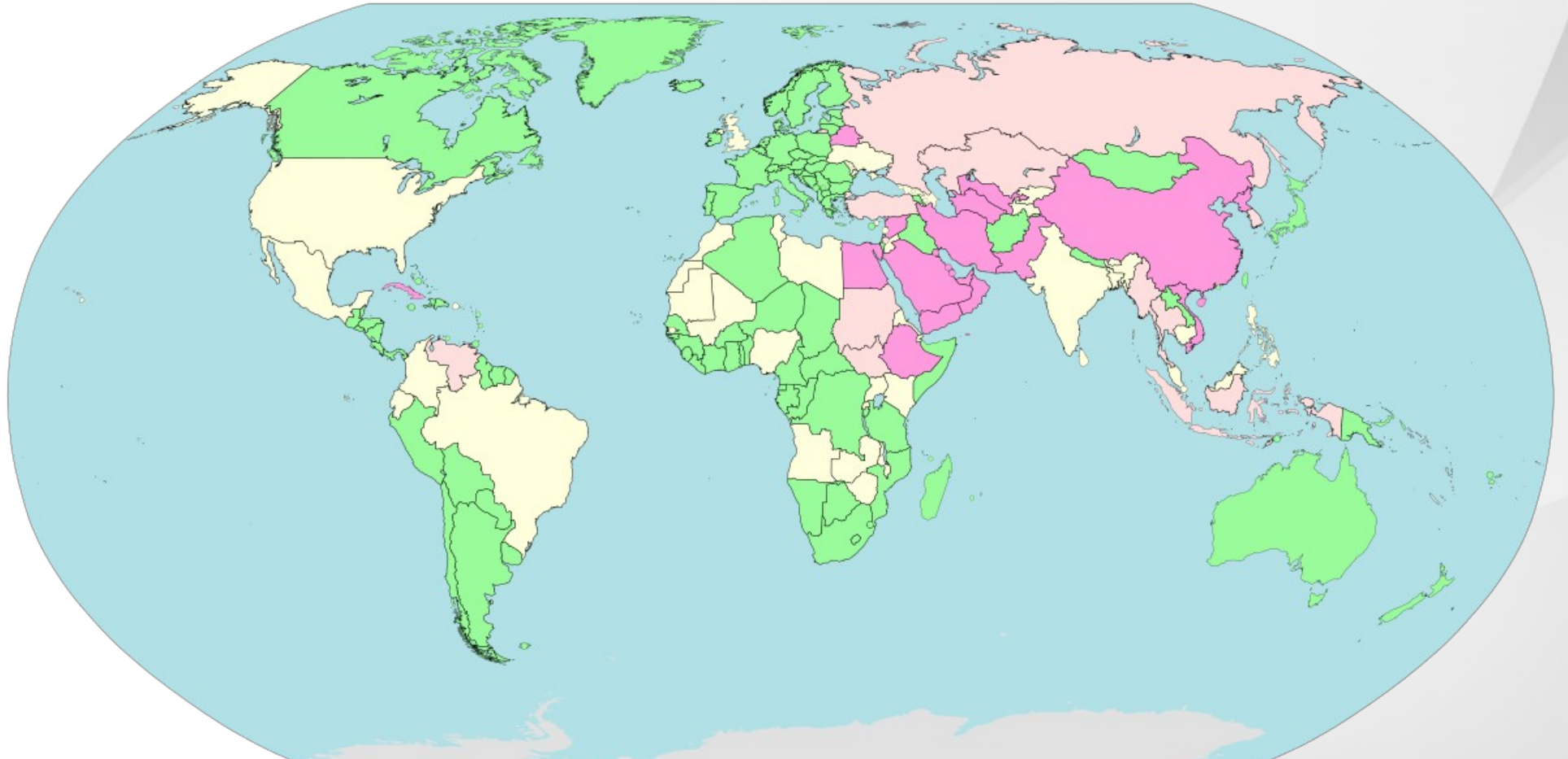
- A relatively new phenomenon, starting mostly in the nineties
- A reason: Internet stems from radically different roots and culture than censorship hardliners – the latter just were not aware of it for awhile
- As already mentioned: the early censors were from the political right (religious/family values), nowadays it is heavily left-leaning (academy, media, various NGOs/'think tanks', many large corporations(!), also some governments and parties)
- Plus, everyone (and his/her pet hamster) is fully entitled to be offended to high heavens and demand your head on platter...
- Self-censorship is sometimes more damaging!

Same fertilizer in different vessels

- Filtering => "remove dirt, keep the clean stuff"
- Blocking => "denying access"
- Censoring => "(ab)using power to deny access"

- SAME MEANING, DIFFERENT ATTITUDES

Internet censorship in 2018



https://commons.wikimedia.org/wiki/File:Internet_Censorship_and_Surveillance_World_Map.svg

Beginning

- 1990 – U.S. Secret Service raids a games company of Steve Jackson blaming the created materials of 'helping hackers' – a reason was the company hiring Loyd 'The Mentor' Blankenship to write the rulebook for a game. The Electronic Frontier Foundation is founded
- 1993 – the SS loses the court case (50k damages + 250k legal expenses)
- Wider publicity in 1995: “Cyberporn”, the cover story of Time magazine – later deemed to be massively incompetent

Legal battles in the US

- 1996 – *Communications Decency Act (CDA)* – passed by Congress, dismissed next year as incompatible with freedom of expression
- 1998 – *Child Online Protection Act (COPA)* – after a long battle, dismissed in 2009
- 2000 – *Children's Internet Protection Act (CIPA)* – passed as constitutional in 2003; all public schools and libraries are obliged to censor Internet traffic to be eligible to federal grants (not mandatory, but eating is not mandatory either)

Define obscenity!

- The Miller test – named after Marvin Miller, a porn producer losing a court case vs California in 1973:
 - Whether "the average person, applying contemporary community standards", would find that the work, taken as a whole, appeals to the prurient interest,
 - Whether the work depicts or describes, in a patently offensive way, sexual conduct or excretory functions specifically defined by applicable state law,
 - Whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value

7 bad words

- In 1972, a stand-up comedian George Carlin recorded “Class Clown”, that included “Seven Words You Can Never Say on Television”
- In 1973, it was broadcast by WBA station – the ensuing court case went up to the highest level and was finally won by censors (votes 5:4) in 1978
- (you may google the words by yourself :))
- In comparison, blogger Patrick Ishmael googled the words from political blogs in 2007, finding... plenty: <https://web.archive.org/web/20070303151722/http://newsbuckit.blogspot.com/2007/02/seven-words-you-can-never-say-on.html>

China vs Google

- A general tendency – the Chinese adopt Western evils, add national colouring and push them further
- 1994 – Internet reaches China
- 1996 – First law on Internet censorship
- 1998 – beginning of the Great Firewall of China
- 2000 – all content creation regulated
- 2002 – Google blocked
- 2005-2010 – Google offers 'sanitized' services
- 2010 – Google drops censorship and is gradually marginalized

1984 in China?

- The Chinese social credit system has its roots in
 - Traditional Chinese thinking (Confucianism, Emperor worship, and stiff punishment system)
 - Communist ideology (mix of Marxism and native, original stuff partially developed from the abovesaid)
 - Modern technology
- Blueprints in 2007, national pilot in 2014, 60+ local programmes by 2022 (national level is still incomplete)
- Main components: surveillance (cameras, microphones, online tracking), Big Data and its processing, sanction system

Examples

- ... of things resulting in “loss of EXP”:
 - eating in public transport (Beijing; exceptions are made for small children and seniors)
 - inadequate visiting of older relatives (Shanghai; upon complaint)
 - taking a wrong seat in public transport (Guangzhou)
 - misuse of car headlights (beams; Shenzhen)
 - booking a table in restaurant and not showing up (Suzhou)
 - ...

Online censorship: technology

- Keywords
- Web addresses (URLs)
- IP addresses
- Nameservers
- Packet filters
- Search engines and portals

- Additionally, “active censorship” (DDOS and other attacks) can be used

Where it happens

- E-mail – the border between censorship and legitimate spam blocking can sometimes be foggy
- Browsers (via plugins) – ditto
- Computer – typically takes admin privileges
- (Local) networks via proxies
- Search engines
- ...

A couple of examples

- Net Nanny 1994 – the first of its kind
- Websense 1994 – belongs to Raytheon, a major contractor of the US military industry
- Green Dam Youth Escort 2009 – main player in China
- Compared to the situation about a decade ago, the “censorship industry” has consolidated (less players left), but also has developed wider than just a purely U.S. phenomenon

Main problems with censorware

- Do not block everything they are supposed to
- Do block a lot of stuff they aren't supposed to (mostly words and terms with more than one meaning)
- Block mostly what the developer (not the user) wants
- Fall out of date easily (proprietary!)
- Can be cheated against
- Slow down the computer
- Sometimes pose a security risk by themselves
- THE MAIN THREAT IS BEING A TOOL FOR POWER PLAY

What do they block

- Some offensive sites
- A lot of controversial issues – citizen rights activists, environmentalists, minorities, pro-choice activists, people with disabilities... Even U.S. Democrats used to get hit much more than Republicans – in this section, the bias seems to be still in favour of political right!
- A great host of bystanders

Some (crazy) examples

- The Scunthorpe Problem - hillaryanne@hotmail.com, assassins...
- Mr Tyson Homosexual, 'breast' and a species of kestrel
- WINE is bad for you
- A well-known product let hardcoresex.com pass

- Note: U.S, Middle East, China and Russia all block a lot, but quite different things

A piece of porn (as understood by a Chinese filter)



https://en.wikipedia.org/wiki/Green_Dam_Youth_Escort

... and a hot chick with nice pussy



http://www.funpic.hu/_files/pictures/630/78/22/2278.jpg

Counters

- VPN
 - Proxy servers
 - Crypto
 - Sneakernet
-
- But also Wikileaks, Darknet, Tor...
 - Main point: censorship (also in the more general sense) is only effective with large-scale public ignorance

Privacy

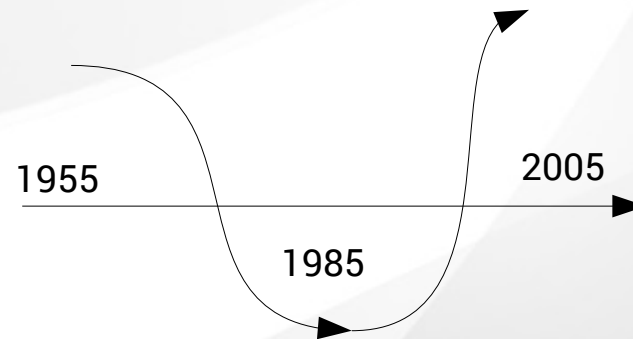
- Before the tech revolution, it was easy – just go away from others and see that no one sneaks
- Introducing distance put it in danger at once – couriers were intercepted, letters opened, cyphers broken, and long before any IT
- Today, we have got paraboloid microphones, laser interferometers and other cool stuff – and with that, proportionally less privacy

From times of old

- The Talmud (Jewish law) mandates anyone building a house next to another to make windows either at least four cubits higher or lower than the neighbour's. Also, eavesdropping was expressly prohibited
- Some later rights defined:
 - Right to autonomy, to be left on one's own
 - Right to control information about oneself
 - Right to keep and privately forward secrets
 - Right to solitude, intimacy and anonymity

The online secrecy sinusoid

- Military – top secret
- Research – some secret
- Education and NGO – not much
- Business – secrecy returns
- Person - privacy



Two-way

- On the one hand, Internet as a communication channels allows impersonality, anonymity and pseudonymity (“hiding behind the screen”)
- On the other hand – everything can be intercepted
- Discovery is likely happening later, after the consequences have surfaced
- Differences between 'clean' and intercepted traffic are either hard to discover or do not exist

Two concepts

- Private communication in a channel implies
- **authenticity** – the message actually comes from where it claims to have come
- **integrity** – the message arrives untampered

My home is my castle?

- Compared to traditional privacy,
 - The situation is much more difficult to control
 - Hindsight
 - "Everything you say may be used against you" – directly or indirectly, at once or years later
 - Identity theft is easier, consequences may be rather serious
 - Legal protection is weaker

Privacy vs security

- Two camps:
 - Those who keep (guards, admins)
 - Those who violate (thieves, spammers)
- Cooperation is possible

The motive counts

- Data collection is ethically neutral, the “charge” comes from its usage:
 - One's personal doctor
 - Generic businesses
 - Advertisement agencies
 - Spammers
 - Criminals

Why all the fuss

- Due to two qualities of Internet:
 - Possible to track others without them knowing it
 - Possible to collect, analyze and preserve ever larger quantities of data
- Privacy takes consenting adults – but Internet is largely different
- As a result, privacy and security compete instead of cooperating



- Collecting information is possible using fully legal channels
- Even the smallest blunders can be registered
- Preservation is not a problem – the info can be put in use at the best moment (e.g. before elections). Usually, just hinting works (next to impossible to prove!), but blackmail is also an option if needed

The dossier effect

- Networks promote systematization of information
- Temptation to collect private information (just in case)
- Customer databases => dossiers
- The state is not innocent either

- Note: Estonian Imre Perli and his 90s databases would probably be nothing special today

Anonymity and pseudonymity

- Under which names do we know
 - Annie Mae Bullock
 - Jean-Claude van Varenberg
 - Reginald Kenneth Dwight?
- In many fields of society (especially culture) it is an acceptable way of ensuring objectivity
- Sometimes can save the author

Anonymity vs comfort

- Everyday anonymity cases:
 - Testing of some diseases
 - Cell phone cards
 - Cash
- There are also cases where comfort beats security:
 - Using a random computer (in a hotel or cafe)
 - Laptops and smartphones (various bad practices)
 - WiFi (unsecured)
 - Facebook ...

Anonymity in Internet history

- In the really old times, it was unnecessary – everyone around was “us”
- Classical hacker tradition did not see a point either – it hindered paying a person with respect
- Expansion, emergence of business and increasing state interference made it vital as a tool for freedom of expression and whistleblowing
- Today, allows 'flying below the radar'

Digital enclosure

- A concept introduced by Mark Andrejevic
- A society where every transaction leaves a digital footprint
- Imagine the world where Google controls the whole Internet...
- ... and many people would be happy with that (just as many young people in China are today)

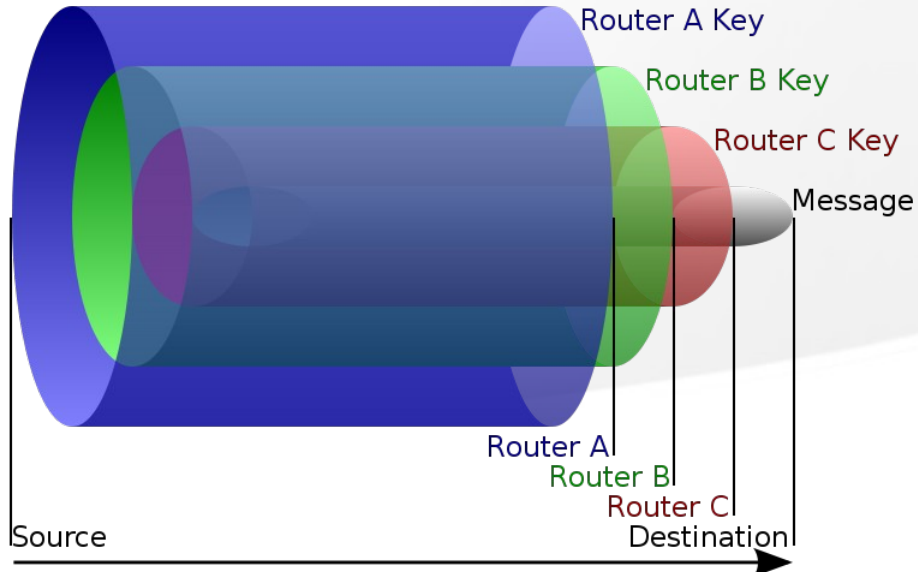
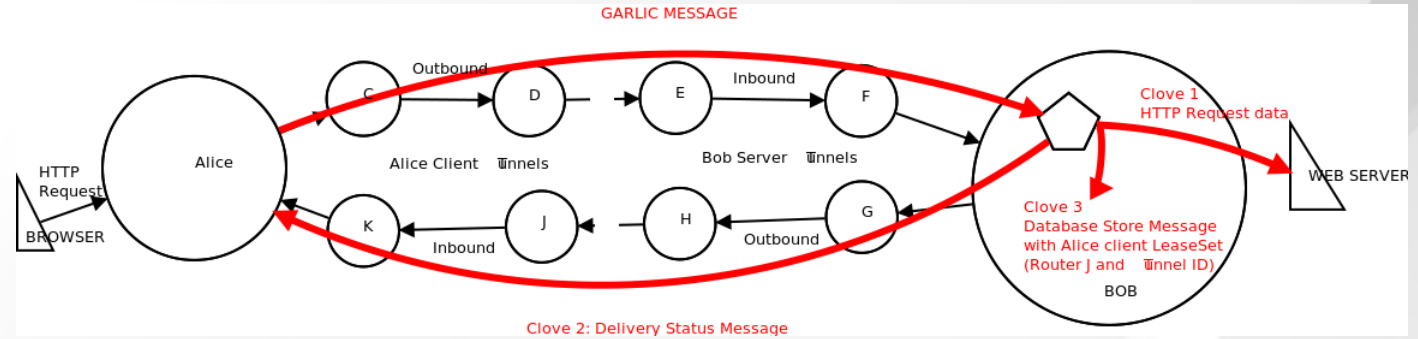
Anonymous e-mail

- Started in Helsinki 1995 with Johan “Julf” Helsingius and anon.penet.fi – a simple connection table, no crypto (type 0)
- 1996 closed down – The Observer blamed Julf’s small server of forwarding 90% of all child porn online...
- Later developments were type 1 (Cypherpunk – one-way messages, public key crypto), type 2 (Mixmaster – cuts message to pieces and sends in random order) and type 3 (Mixminion – combo of 1 and 2)

Onion and garlic

- Onion routing – message encrypted by layers
- Developed in the 90s at the US Navy Research Laboratory (Paul Syverson et al), further developed by DARPA and others
- Tor Project (*The Onion Routing*) – founded 2006 as an NGO project, original creators + EFF
- I2P (*Invisible Internet Project*) – since 2003. Anonymous e-mail, Bittorrent, I2P Messenger and other services. Garlic routing – adding message grouping to the onion system

Figures



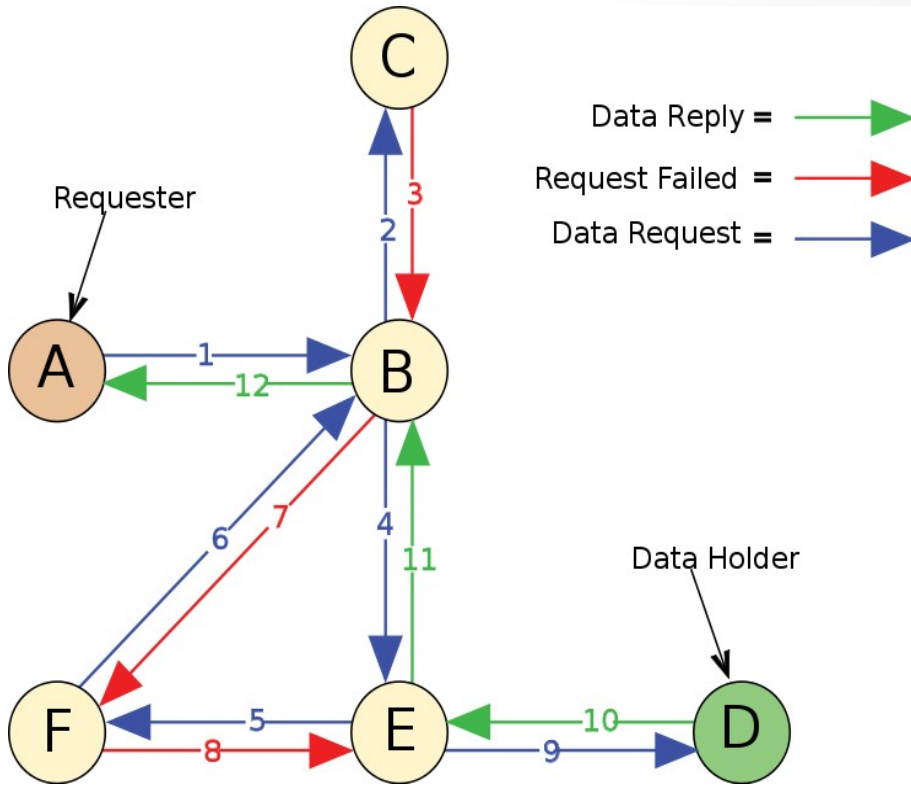
<https://geti2p.net/en/docs/how/garlic-routing>

https://en.wikipedia.org/wiki/Onion_routing

Internet as an iceberg

- **Surface Web** – where search engines work (ct passive information mentioned at communication topic)
- **Dark Web** – what Google cannot reach (simple examples are everything behind passwords)
- **Dark Internet** – addresses that cannot accessed from ordinary Web (e.g. the original MILNET)
- **Freenets** – public networks dedicated to anonymity and freedom of expression (Ian Clarke 2000)
 - Opennet – allows connecting to strangers
 - Darknet – closed, limited-access networks

A Freenet query



http://upload.wikimedia.org/wikipedia/commons/a/ae/Freenet_Request_Sequence_ZP.svg

What to learn from Wikipedia

- When studying anything online:
 - Keep the NPOV (overall neutral point of view)
 - Bring out all the competing standpoints
 - All main assumptions/statements have to be sourced
 - Major/principal changes require discussion and consensus

Some recommendations

- Read and follow as much different channels as possible
- Sometimes, the ones with radically different worldview from yours are the best teachers!
- Dare to
 - ask
 - doubt
 - criticize
 - laugh (including at yourself)

Conclusion

- Censorship is bred by power – also online
- Censorware does not work
- Privacy is a little similar to weapons:
 - Limitations decrease some random misuse
 - Limitations also decrease self-defense ability of honest people (and by this, their dignity)
- The main goal is to raise awareness and create informed people. Those are a bit more difficult to turn into cattle (“Moo!” said The Plague)...

Some further reading

- Christian Parenti, *The Soft Cage*
- Mark Andrejevic, *iSpy* (the first half)
- *Banned Books Online*,
<http://onlinebooks.library.upenn.edu/banned-books.html>
- *Official Mixmaster Remailer FAQ*,
<http://mixmaster.sourceforge.net/faq.shtml>
- *Why Censorware Sucks*,
http://attrition.org/misc/ee/why_censorware_sucks.txt
- <https://tails.boum.org/>

Thanks