

Ethical, Social and Legal Issues on the Web

Lecture 12 - COMPSCI111/111G SS 2018



"You should have been here back in the old days before cloud computing."

Recap

- ▶ We've already discussed a number of social issues:
 - ▶ L5- electronic communication:
 - ▶ Spam
 - ▶ Misrepresentation online
 - ▶ L6- publishing online:
 - ▶ Reliability of information on Wikipedia
 - ▶ L7- the World Wide Web:
 - ▶ Search engines and the implications of their data collection

Today's lecture

- ▶ Ethical
 - ▶ Online anonymity
 - ▶ Different kinds of malware
- ▶ Social
 - ▶ Online bullying
 - ▶ Cultural dominance
- ▶ Legal
 - ▶ Copyright and file sharing
 - ▶ Censorship on the Web

Ethical issues

Online anonymity, malware

Online anonymity

- ▶ It is impossible to be completely anonymous on the Web
- ▶ However, it is possible to remain fairly anonymous on the Internet
 - ▶ Easy to give fake information when creating an account on a website
 - ▶ Most websites don't perform an ID check on their users



Online anonymity

- ▶ Anonymity on the Internet is being eroded:
 - ▶ Advertisers are able to effectively track users' preferences and browsing habits
 - ▶ Cookies
 - ▶ Fingerprinting
 - ▶ Websites demand more personal information and keep track of users' activities
 - ▶ Laws require ISPs to keep a record of the IP addresses assigned to users
 - ▶ Governments are expanding their online surveillance powers

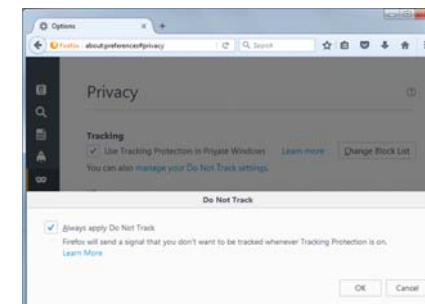


Online anonymity

- ▶ Advantages:
 - ▶ Encourages free expression online, especially around sensitive or personal issues
 - ▶ Supports other rights such as the right to privacy
- ▶ Disadvantages:
 - ▶ Use of anonymity to harass and offend other people
 - ▶ Eg. 'trolls' on Twitter
 - ▶ Difficult to authenticate whether a message (eg. email) is from the purported sender
 - ▶ Makes it difficult for authorities to track criminal activity online

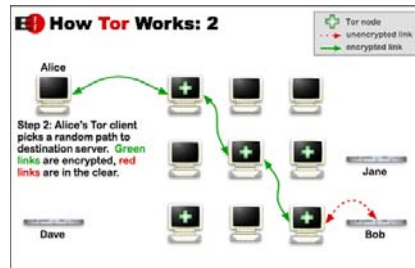
Online anonymity

- ▶ Do Not Track initiative:
 - ▶ A browser option that tells an advertiser you do not want them to track your browsing habits
 - ▶ Voluntary system; the advertiser is under no obligation to abide by Do Not Track requests



Online anonymity

- ▶ The Tor Project:
 - ▶ A network of servers that use **onion routing** to obscure the path that packets take when moving from sender to receiver
 - ▶ Onion routing involves sending the packet along a random path through a set of encrypted relays
 - ▶ Need to use the Tor browser in order to browse the Web over the Tor network



Online anonymity

- ▶ By protecting data as it is being transported, Tor makes it difficult to intercept data or find the source/destination
- ▶ However, it doesn't protect a user's computer from cookies or from being fingerprinted
- ▶ While the extra anonymity provided by Tor is useful, it has also been misused (eg. [the Silk Road](#))



Malware

- ▶ **Malware:** malicious software, which includes:
 - ▶ **Viruses:** inserts itself into another program; runs and spreads itself when the program is opened.
 - ▶ **Worms:** similar to viruses except they don't need a program in order to run; spreads by itself.
 - ▶ **Trojans:** malware disguised as legitimate software.
 - ▶ **Spyware:** runs in the background, monitoring the user's activities and sending the info back to the operator.
 - ▶ **Logic bombs:** malware deliberately inserted into a program which runs when a certain condition is fulfilled.

Malware

- ▶ The best protection against malware is a good anti-virus program and the use of safe browsing practices:
 - ▶ Don't click on unknown links
 - ▶ Delete spam messages
 - ▶ Don't open unknown attachments

Social issues

Online bullying, cultural dominance

Online bullying

- ▶ Some people take advantage of online anonymity to bully and harass others online
- ▶ One UoA [study](#) found 11.5% of people in NZ over 18 have experienced online bullying
- ▶ Online bullying is a growing problem among youth. Our 'always online' society makes it difficult to avoid online bullying



Online bullying

- ▶ The [Harmful Digital Communications Act 2015](#) (HDCA) is one response to this growing problem
 - ▶ s3: purpose of this Act is to:
 - ▶ Deter and mitigate harm caused by digital communications
 - ▶ Provide redress to victims of harmful digital communications
 - ▶ s4: key definitions
 - ▶ 'digital communication' means "any form of electronic communication" - includes texts, emails, IM, forum posts, Snapchat etc.
 - ▶ 'harm' means "serious emotional distress"
- ▶ Two main avenues of redress under the HDCA

Online bullying

- ▶ **First option:** complain to the Approved Agency
 - ▶ Approved Agency is [Netsafe](#); a non-profit organization
- ▶ If the complaint is genuine, Netsafe will use "negotiation, mediation, and persuasion (as appropriate) to resolve complaints" - s8(1)(c)
- ▶ s11: after Netsafe has assessed the complaint, the person can apply to the District Court for an order
 - ▶ s12: Court must be satisfied that the communications principles have been breached (s6) and that the person has been harmed
 - ▶ Orders under sections 18 and 19 include:
 - ▶ Take down material, cease conduct, publish a correction, publish an apology

Online bullying

- ▶ **Second option:** person or Netsafe can complain to online content host (a person who controls “an electronic retrieval system”) where the harmful digital communication can be accessed
 - ▶ Includes social media sites, blogs, search engines
- ▶ s24: when a host gets a complaint, it must try to contact the author of the harmful digital comm.
 - ▶ If the author responds and refuses to remove the material, then the host can't do anything
 - ▶ If author doesn't respond or the author agrees, the host must take down the content within 48 hours
- ▶ s23: following this process protects the online content host from any legal liability arising from the harmful digital communication

Cultural dominance

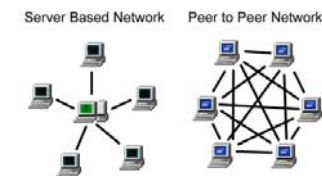
- ▶ The Internet was popularised in the USA and English is the dominant language online
- ▶ Other cultures now have a strong presence and influence on the Web
 - ▶ Chinese social media platforms, eg. Weibo, Wechat
 - ▶ K-pop
- ▶ Diverse control over key pieces of Internet infrastructure. Examples:
 - ▶ We've seen backbone cables are mostly owned by private companies
 - ▶ ICANN now manages the DNS system.

Legal issues

Copyright and file sharing, censorship on the Web

File sharing

- ▶ One of the Web's main aims was to help people easily share information
- ▶ Today, cloud storage (eg. Dropbox, Google Drive) is an easy way of storing and sharing files
- ▶ Peer-to-peer (P2P) networks provide another way of sharing files
 - ▶ P2P networks use the BitTorrent protocol to enable computers to connect to each other and share data

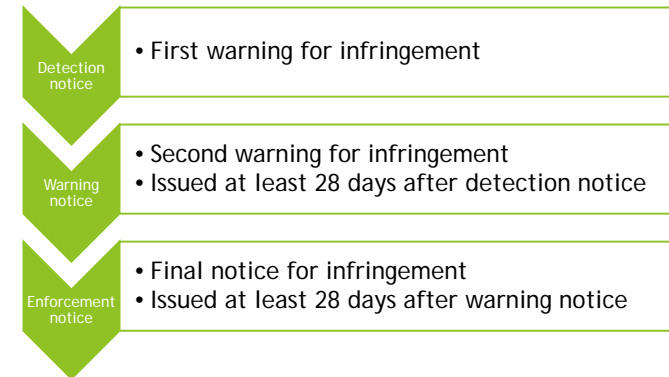


File sharing

- ▶ Unfortunately file sharing on P2P networks is used for copyright infringement
 - ▶ Copyright protects an author's work from being copied without their permission
 - ▶ One of the most famous P2P networks is The Pirate Bay
- ▶ The Copyright Act 1994, sections 122A to 122U, provides a way for copyright holders to complain about file sharing on P2P networks

File sharing

- ▶ Up to three notices are given to the infringer by their ISP in a nine month period
- ▶ Infringer can challenge each notice



File sharing

- ▶ When an enforcement notice is issued, the infringer can be penalised:
 - ▶ Copyright Tribunal can impose a penalty of up to \$15,000
 - ▶ District Court can suspend the infringer's Internet connection for up to 6 months
 - ▶ This section of the Copyright Act is NOT in force ... yet

Censorship on the Web

- ▶ The Office of Film and Literature Classification is responsible for determining the age classification of publications
 - ▶ Includes movies, books, games, pictures, computer files etc.
- ▶ Three levels of classification:
 - ▶ **G, PG, M:** publication can be viewed by anyone, caution needed around PG and M
 - ▶ **R13, R15, R16, R18:** publication can **only** be viewed by people of the given age and over
 - ▶ **RP13, RP16:** publication can **only** be viewed by people of the given age and under if accompanied by their parent



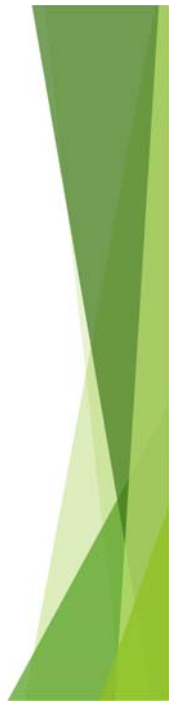
Censorship on the Web

- ▶ Any publication on the Web (movies, games, music etc) is subject to NZ's censorship laws when accessible in NZ
 - ▶ So movies and games sold online must have a classification label if required
 - ▶ Sometimes, a publication is classified as objectionable, meaning it can't be owned or sold in NZ
 - ▶ Objectionable publications are those with extremely sexual, violent or offensive content



Censorship on the Web

- ▶ Software can help to restrict access to certain content on the Web
- ▶ Blocking software
 - ▶ Uses a blacklist or whitelist of IP addresses to determine which websites can be accessed and which websites should be blocked
- ▶ Web filter
 - ▶ Prevents access to websites based on their content (eg. image/video screening, keywords, malware etc)



Exercises

- ▶ What is the main weakness of the Do Not Track initiative?

- ▶ What is the key difference between a virus and a worm?



Exercises

- ▶ Name one of the orders a court can make under the Harmful Digital Communications Act

- ▶ What are the differences between the R13 and the RP13 classification?



Summary

▶ Ethical

- ▶ Online anonymity is eroding but can still be protected
- ▶ Malware includes viruses, worms, spyware, Trojan horses and logic bombs

▶ Social

- ▶ Online bullying and the Harmful Digital Communications Act
- ▶ Cultural dominance

▶ Legal

- ▶ Copyright Act 1994 and file sharing
- ▶ Censorship on the Web through classifications and web filtering

