

## Security Lab 1

### A.

I will install HTTPsEverywhere to ensure that, I'm always browsing the most secure version of the website available.

Ghostery will be used to protect me from Ads which may deliver malicious payloads and block third party trackers in websites.

I will also use Facebook Container in Firefox to block facebook trackers and ensure facebook is sandboxed.

Disconnect is another extension I use which further blocks tracking scripts and makes them easy to see in a GUI.

Finally I will use Air VPN to secure my traffic in a VPN tunnel and anonymise my exit point, so that I can't be geo restricted.

While the tools mentioned above can greatly reduce the scope of tracking and block specific parties, being completely private on the web is impossible in this day and age, with tracking links embedded in the majority of websites, techniques like browser fingerprinting which produce a unique hash based on numerous identifiable pieces of information left behind by browsers, tapped internet cables and more.

### B.

The Deepweb is called the deep web because it is not indexed by common search engines and is therefore invisible to the majority of web users who only navigate via Google Etc. It's composed generally of unindexed site pages, FTP's, Amazon Buckets and any other non indexed web pages.

Within the Deepweb you find the Dark web which is a subset of the Deepweb, only accessible via special software designed to anonymise traffic such as I2P, Darknet, Freenet, Tor being among the most popular.

The Dark web itself is indexed by tools such as the Hidden Wiki, Torch and others.

Accessing the Dark Web is quite dangerous, you stand a high chance of being exposed to illegal content such as Child Pornography, Drug Dealing, Hitmen, money laundering etc by accident.

Law enforcement agencies keep it under constant monitoring and try expose users connected to it by exploiting Computer Vulnerabilities and other tracking technology. Despite it's association with illegal activity, accessing the Dark Web is not illegal and it has been used for good purposes by journalists, whistleblowers, people living in authoritarian states.

It is estimated that content on the Deep Web composes 96% of the webs actual content, due to the nature of the Dark web it's impossible to produce an estimation of it's true size but it's very small in comparison to the surface and deep web.