Layers of the Web:

Let's discuss three main layers of the Internet Surface web, Deep Web & Dark Web. The surface web and dark web, no matter which part of the internet the user accesses, nothing will stay secret or safe at all. Hackers and cybercriminals have been misusing the internet as a tool to spread and deploy cyberattacks.

Surface Web:

Everything you see on the surface of the internet when going online forms part of the surface web, which comprises just 4% of the entire net. The data available on the surface is purposely indexed by search engines, and this is the reason you can access it easily compared to information on other web layers. Therefore, surface net is the part of the internet that is always available to the public and accessible via search engines such as Google, Yahoo, or Bing. Examples of Surface Web include Facebook, YouTube, Wikipedia, Regular Blogging Websites, and basically everything that we can see on any search engine's result page.

Deep Web:

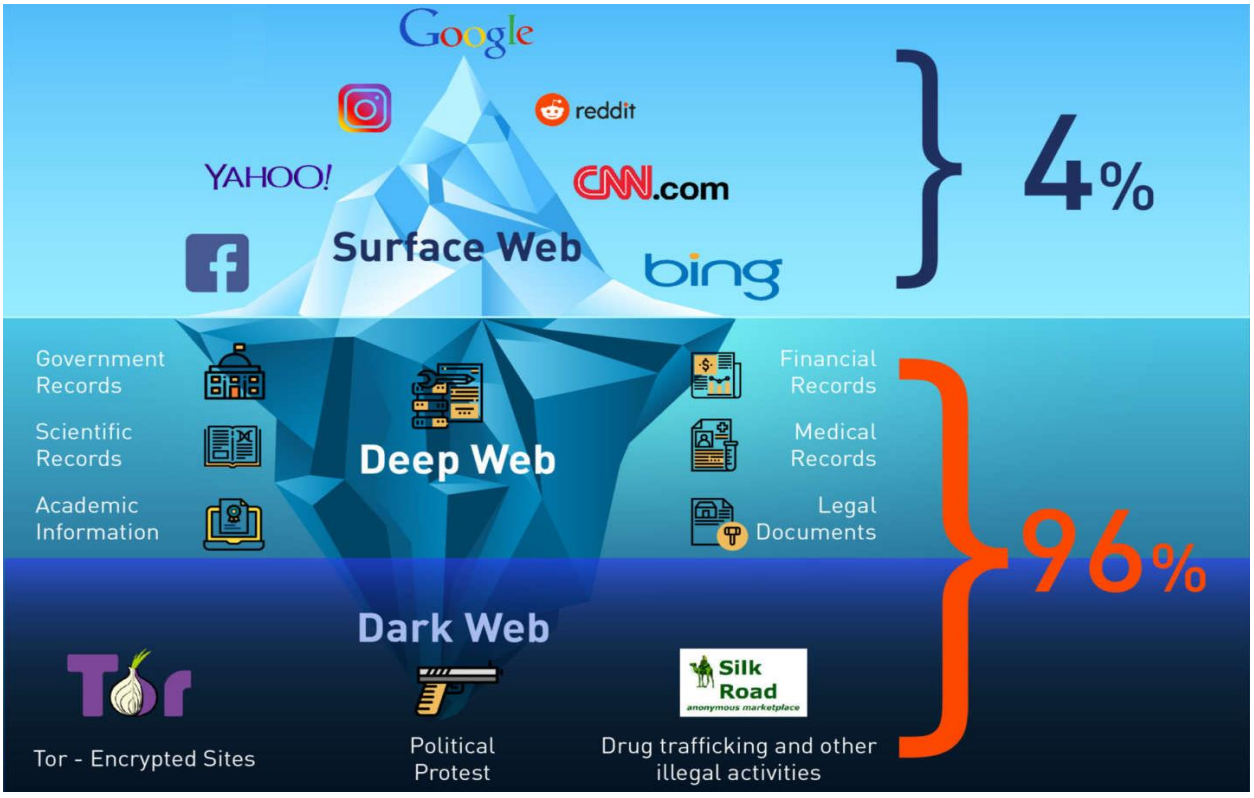
Deep web forms 95% of the net and includes data not indexed by search engines. This means that you will not access this data with a simple search. So, the surface web can be tracked by search engines, while the deep net includes everything that search engines cannot identify, because they are protected with a password or stored behind internet services. This is why spiders are invisible. Websites which can be accessed with a username and password (email, cloud services, online banking, or paid subscription-based online media sites). Video-on-demand services like Netflix, Amazon Prime, or HBO. Educational or library websites. Medical records. Accessing deep pages is comparatively safe, but your accounts contain personal information valuable for criminals. For this reason, it is recommended to use unique and strong passwords with a hard combination of letters, symbols and numbers.

Dark Web:

The dark web (or so-called dark net) includes sites designed to be hidden which mostly have TOR (The Onion Router) URLs that are impossible to remember, guess or understand. TOR websites aren't popular, and they are not accessible without using specific software programs, as a great deal of data is encrypted and hosted mostly anonymously. On the dark net, there are sites related to black markets and illegal activities Marketplace for drugs and unregistered weapons. WikiLeaks documents. Content depicting abuse towards war prisoners, children, etc. Apart from special software programs, so-called dark pages can be accessed only with the help of anonymized browsers like TOR, which is the most popular one. When accessing dark pages, a user remains entirely anonymous—no one can trace his IP address, as TOR encrypts every piece of content or action, making tracking almost impossible. But not everything on the dark net is illegal.

The dark net is also used as a secret communication channel for journalists, human rights activists, or political activities. Plus, by using the dark net, military services can exchange confidential data anonymously. It is also widely used by governmental entities to store intelligence reports, political records, and other sensitive data.

both deep and dark nets are hidden from search engines, the basic difference between these two concepts is that deep pages can be accessed through credentials and authorization, while dark pages require a special browser and software with a decryption key. Additionally, data of deep pages is not hidden, unlike the Dark Net. The WWW is like an iceberg, in which the smallest part of the entire network we visit regularly is on the top, but the biggest part is unseen.



Layers of the Web Analogy:

Let's imagine the Internet as one big city which contains public spaces open to everyone, such as the streets, malls, and parks you will find on the map. Anyone can go there and look around and you can easily find them on a map such as Google Maps.

On the Internet, these public spaces are known as the Surface Web. They are Web pages, Web applications, and other online elements that search bots can index. They may hold documents, media files, and more. Anyone can find them using a search engine and view them without paying, registering, or installing special software.

In addition to public areas, cities have private zones that require a pass, ticket, or invitation for access. These include homes, business centers, private clubs, cinemas, and so on. Usually, no publicly available map will show you what's going on inside these places. The Web, too, is home to many corners that Google, Bing and others do not peer into. Collectively, such places are known as the Deep Web. They consist primarily of all of the Internet pages that cannot be searched and opened by normal means, and bot index them. If something cannot be found, even if it can be opened, then it too belongs to the deep web.
Finally, deep web also refers to all content to which no links exist from the visible or surface web. A search bot simply does not know that such content exists; it finds new pages by following links from the pages it's already indexed. As you see, the bulk of the deep web is made up of harmless, even useful web pages and documents that most of us use. There's nothing wrong with them being off-limits to outsiders.