



# DARK WEB

. . Kiyan Pourazar  
. . Sadra Zamani

# Abstract

---

- In recent years, the Darknet has become one of the most discussed topics in cyber security circles.
- Current academic studies and media reports tend to highlight how the anonymous nature of the Darknet is used to facilitate criminal activities.
- The dark web is a hidden part of the world wide web that can only be accessed using a special browser known as Tor

# Parts of Web

---

To understand what the dark web is, we need to understand its terminology. The internet is often described as consisting of three parts:

- i. The surface web,
- ii. The deep web
- iii. The dark web.

## Surface Web

Google, Yahoo, Facebook, Amazon, etc  
(Webpages that are easily located by search engines)



## Deep Web

Files on Google Drive or Dropbox, banking/financial records, medical documentation, legal documentations, etc

95%

## Dark Web

Hidden contents, illegal marketplaces, illegal informations, etc



# Surface Web

---

- It is **the part of the internet most of us use every day** , activities like social networking and reading news on the Common Web
- It's accessible through regular browsers such as Google Chrome, Safari, or Firefox.
- You can access it anywhere and at any time, as long as you have an internet connection and a browser.

Don't forget that it's because of the surface web that giants like Facebook and Google know almost everything about you.

# Deep Web

---

- The term “deep web” refers to the part of the internet that’s behind closed doors.
- Most of the deep web consists of pages and databases that are only meant for a certain group of people within an organization.
- Your work database might be on this part of the Deep web.
- Most of us won’t have access to this part of web and the required login credentials and this information can’t be found on search engines

# Dark web

---

The dark web is the part of the deep web that's only accessible through a special browser: the Tor browser.

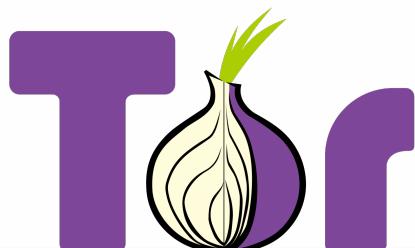
Also called the “darknet,” this collection of sites refers to the unregulated part of the internet.

No organization, business, or government is in charge of the dark web or is able to enforce rules.

# Tor (The Onion Routing project)

---

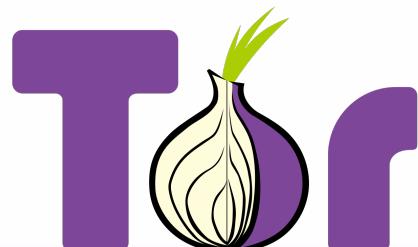
- The Tor project is a non-profit organization that conducts research and development into online privacy and anonymity.
- It is intended to prevent anybody from tracking your browsing history or discovering where you are, including businesses and the government.
- The Tor network is a secure, encrypted protocol that can ensure privacy for data and communications on the web.
- Tor is legal to use but Tor is not designed nor intended for Tor users or Tor network operators to break the law



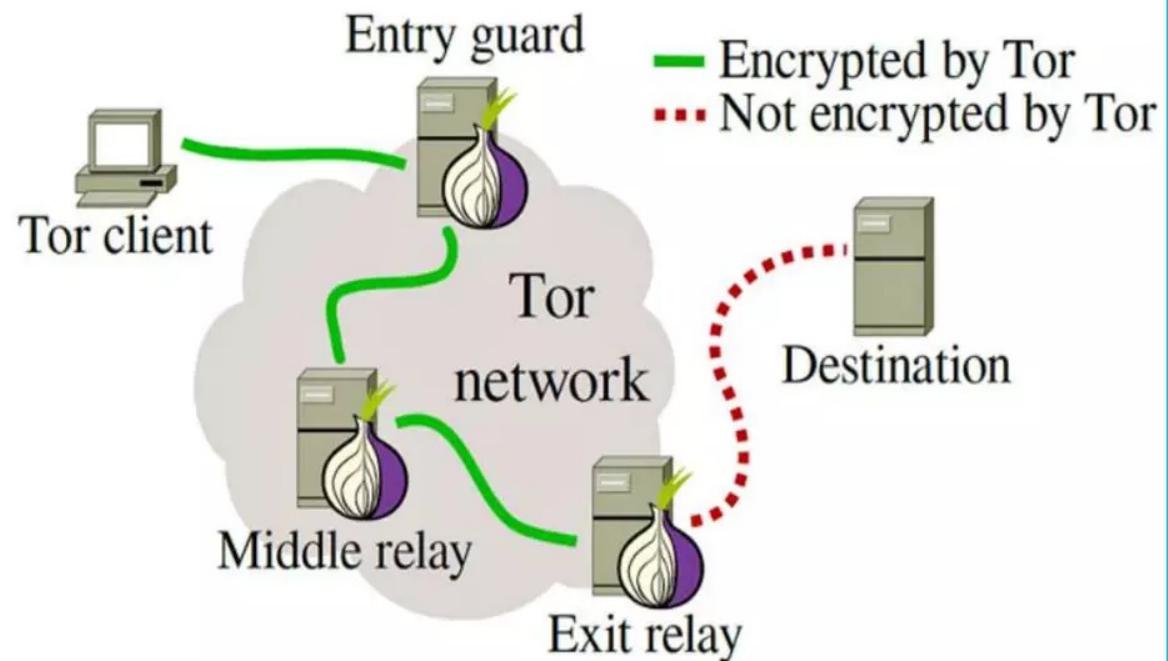
# Who created Tor?

---

- Onion routing, The original technology behind Tor was developed by the United States Naval Research Laboratory in 1990s.
- The Onion Routing project (which later simply became "Tor"), was launched on 20 September 2002
- The US Navy used tor with the specific purpose of insuring the anonymity of communications over the Internet.
- With the help of tor the US Navy protects the identity of US Navy intelligence agents



# How Tor works?



Tor is a network of virtual tunnels

Tor works by sending your traffic through three random servers (also known as *relays*) in the Tor network

The last relay in the circuit (the “exit relay”) then sends the traffic out onto the public Internet.

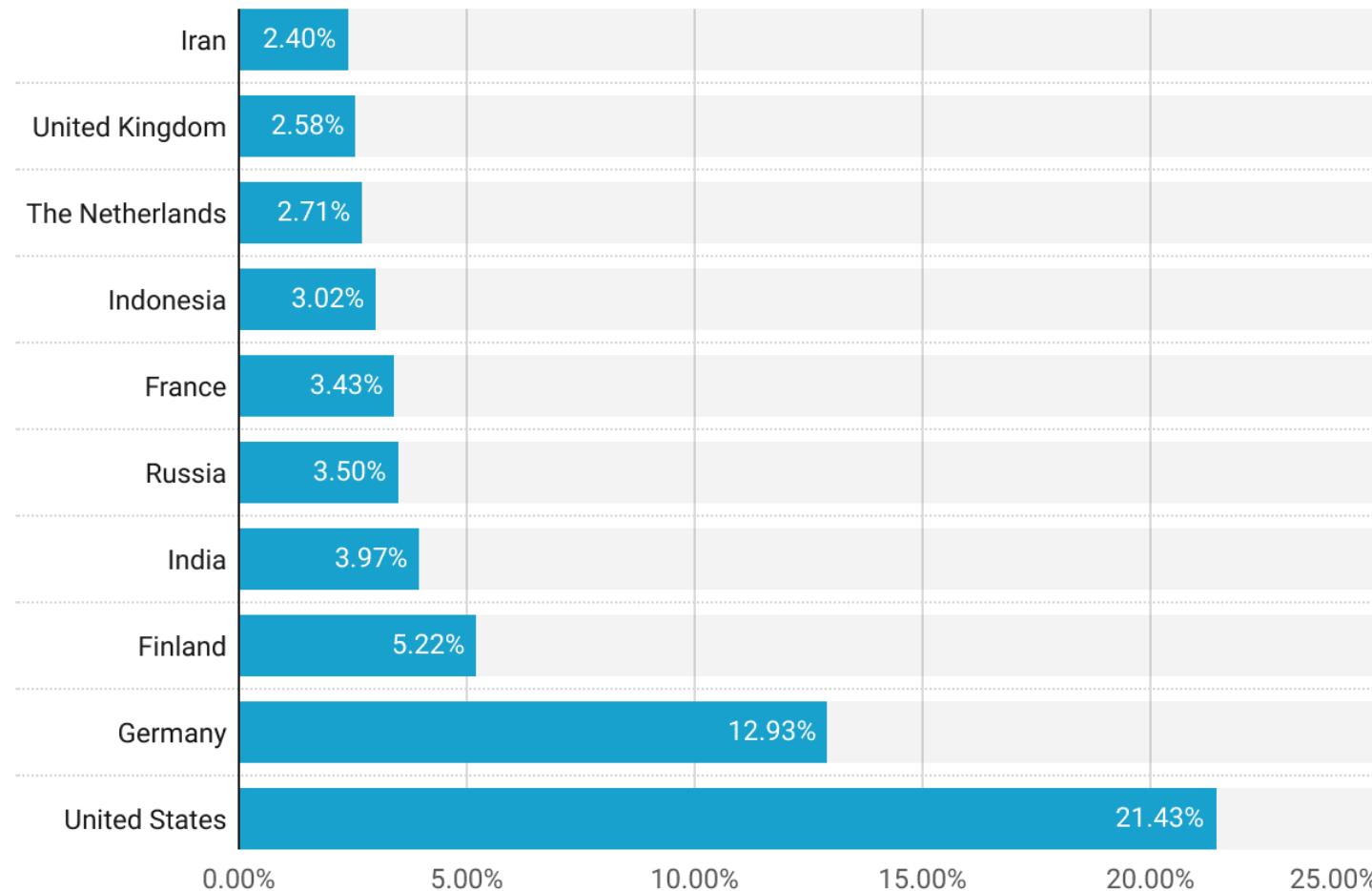
Thus, it creates multi-layered encryption (layers like an onion) and a hard-to-follow path

There are over 7,000 of these servers, which mostly belong to volunteers.

# Average Number of Tor Users per Day

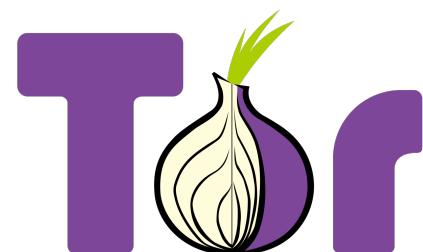
By Country

■ Percentage of Tor Users



(Tor Users in %)

Source: Market.us Scoop



# When and Why Was the Dark Web Created?

---

- The dark web is known to have begun in 2000
- The thesis project of University of Edinburgh student , who set out to create a "Distributed Decentralized Information Storage and Retrieval System.
- He aimed to create a new way to anonymously communicate and share files online

# Is the Dark Web Safe?

---

Like most things, it depends. Here are some cybersecurity issues you should consider:

- **Remote administration tools can be auto downloaded**
- **Malware Like Spyware / Ransomware**
- **Hackers may**
- **Phishing scams**
- **Suspicious links**
- **Criminal element**

It's dangerous to buy or download anything from illegal marketplaces it may contain malware.

# Harmful contents of darkweb

---

- Due to the dark web's encryption, websites cannot track geolocation or IP address of users. This allows users to talk, blog, transact and share files confidentially.
- Some contents of Dark web.
  - I. Stolen Information
  - II. Drugs and Stolen Goods
  - III. Disturbing Content
  - IV. Bitcoin Lottery Tickets
  - V. Terrorist Content
  - VI. Hacking Services

# What You Can Find on the Dark Web?

---

## 1) Black markets

Black markets have flourished since the birth of the internet. The dark web is home to many black marketplaces, where all sorts of goods can be sold and bought, from cheap Netflix accounts to credit card numbers, weapons, and drugs.

## 2) Email services

Email services on the dark web almost always require you to use Tor and only allow you to send emails to others who are also using Tor.

# What You Can Find on the Dark Web?

---

## 3) File uploads and transfers

Secure file uploads and transfers are widespread on the dark web, as the onion network provides several layers of encryption on both your files and connection. Similar to whistleblowing websites, file transfer services are used by journalists and informants to share files with sensitive information.

## 4) Forums and chat boards

There are several message boards and chatrooms on the dark web, often dedicated to topics that aren't safe to discuss in other parts of the internet.

# What You Can Find on the Dark Web?

---

## 5) Whistleblowing websites

Whistleblowers and journalists use the dark web to leak or find sensitive information. People who want to report a company or their government for illegal acts can use Tor to try and stay anonymous.

## 6) Link directories

To access a specific dark website, you need to **know the exact URL** of that page. And it's not like these URLs are easy to remember either: they're strings of random numbers, letters, and special characters. There are dedicated pages that can help you find what you're looking for.

# The Dark Side of the Dark Web

---

Hackers use the dark web as their playground to sell their services and earn a living.

- One can hire a hacker or hire an assassin
- Drug marketplace where drugs are been sold
- Weapons
- Child Pornography
- Red Rooms
- Human Flesh
- Disturbing contents and a lot more

# The Red Room

---

A Red Room is basically a livestream on the deep/dark web where dark web criminals will take people that they have kidnapped and kill them on camera.

The human parts are cut out instead of money. The transaction of money on these websites are through Bitcoins.

The people also take membership fee to access these Red Rooms.

Most of these types of websites are banned by Cyber Police

# The silk road

---

The first modern dark web market, known for selling drugs created by **Ross Ulbricht** who was only 31.

Ulbricht's website had more than \$1.2 billion in sales for illegal drugs and other products, using cryptocurrency to make the exchanges.

Police arrested Ulbricht on Oct. 1, 2013, in the science fiction section of the San Francisco public library.

Agents who made the arrest said the young man was literally working on the site when they arrested him.

The FBI tracked Ulbricht by tracing some of his early requests to others to help him build the site.

**Search options**

Filter

Popularity Rating Random Quantity

**Vendor**  
All vendors

**Category**  
All drugs

**Source** Worldwide **Destination** Worldwide

Min. amount 10 Unit All

From € 250 To € 750

Search term Fishscale

Find offers

**Categories**

- Drugs 3746
- Cannabis 1519
- Stimulants 560
- Ecstasy 241
- Opiates 213
- Benzodiazepines 253
- Psychedelic 398

PALLADON® RETARD 8 mg Hydromorphone HCl

Opiates > Pills  
Palladon 8mg - (Hydromorphone)

Importeur Sweden Worldwide

5 pills - 120 pills 122 - 2,796 €

Ksalol 1 mg tabletta

REAAAA!! KSALOL 1 MG GALENIKA

Grossisten Sweden

Stimulants > Speed  
Speedy Gonzales Svenskt amfetamin AAA+++

Drugify Sweden

**TOP STOP**

Cannabis > Buds  
REAL!!- Garlic Cookie can 3.5

TopStop Sweden

1 - 5 42 - 148 €

Promoted

Stimulants > Speed  
Speedy Gonzales Svenskt amfetamin AAA+++

Drugify Sweden

# Dark Web Example

**ARCHETYP**

Archetype Market is the Platonic concept of pure form, believed to embody the fundamental characteristics of a thing. XMR, BTC, BCH, ETH, LTC, DOGE, DASH and ZEC is supported. Drugs only.

Categories: Markets, Rank: #64 Pop: 42

Trust Report Report Abuse

Fill in the numbers above and press the circle with a dot to voter

869246

Onion.Live <http://4pt4axjgzm4ibmxplluvopxzt778e8bqeytatacryshtduipyd.onion/>

Archetyp links

URL	Status	Conn. Time	Last Seen	Last Check
<a href="http://4pt4axjgzm4ibmxplluvopxzt778e8bqeytatacryshtduipyd.onion/">http://4pt4axjgzm4ibmxplluvopxzt778e8bqeytatacryshtduipyd.onion/</a>	up	5.326	3m	2m

to the following address:

Shipping details ...

Shipping details will be automatically encrypted. To manually encrypt your shipping details use [GottOchBlandats PGP key](#).

# Conclusion

Navigating the darkweb can be quite interesting yet you must exercise safety as you ride the dark tunnel. First block web cam, second don't download anything from the darknet, and lastly don't maximize the tor browser screen. Enjoy surfing!

THANK YOU. .