

## **THE INFLUENCE OF THE DARK WEB**

**Nexhibe Sejfuli-Ramadani<sup>1\*</sup>, Florim Idrizi<sup>2</sup>, Florinda Imeri<sup>3</sup>**

<sup>1</sup>*Department of Informatics, Faculty of Natural Sciences and Mathematics, University of Tetova, RNM*

*\*Corresponding author e-mail: nexhibe.sejfuli@unite.edu.mk*

---

### **Abstract**

The Dark Web is the web that provides more freedom, so the main goal of the Dark Web is the freedom that some do not feel on the Surface Web. It is the Web content that is available on darknet and to access them, you need to have specific software. The dark network is often confused with Deep Web, which refers to unmarked (searchable) internet sites from traditional search engines. The Dark Web is at the center of the debate over whether anonymity online should be kept regardless of the illegal activity it provides. It is growing fast thanks to new tools, which makes the navigation easier. Websites which are the part of the Dark Web are accessible only by using Tor (The Onion Routing) and I2P (Invisible Internet Protocol). Tor provides anonymous access to the Internet and I2P specializes in allowing the sites to be accessed anonymously. The Darknet is used for illegal activities such as selling and buying drugs, hacking, fraud, pornography, etc. But also anonymity, privacy, access to restricted materials can be used in many positive ways. This research describes the effect of the Dark Web respectively what the Dark Web and the Deep Web are also this document aims to provide recommendations belong to the Dark Web, based on open- source research. This paper endeavors to provide a broader understanding of the dark Web and its influence on our lives.

**Keywords:** *Dark Web, Deep Web, Tor, anonymity.*

---

### **1. Introduction**

Most people have a wrong idea about the term of the Internet and World Wide Web, they think that the Internet and WWW are the same thing or synonym but they are not. The Internet is a global network contained of computers, which connects millions of computers together, forming a network in which any computer can communicate with any other computer until they are connected to the Internet, and the World Wide Web also known as the WWW or the Web, is based on different technologies which enable users to locate and share information through the Internet (TheeDesign 2006). Additionally, there are two notions worth mentioning: the Surface Web and the Dark Web. The Surface Web is the part that is easier to access by the users, and for this reason, it is also known as “Visible Web”. The Dark Web or the “Invisible Web” is accessible by using special tools and software (Dange, Malkan and Jha n.d.).

### **2. The Dark Web**

The Dark Web (also called Darknet) is a collection of websites which uses anonymity tools like Tor (The Onion Routing) and I2P (Invisible Internet Project) to hide their IP address.

The Tor network is an anonymous network that can only be accessed with a special Web browser, called the Tor browser, which allows the users to hide their identity and thus online activity behind multiple layers of encryption (Torproject n.d.). Tor allows you to navigate the Dark Web. The Onion Router was created by the US Naval Research Laboratory as a tool for anonymously communicating online. To access the anonymous sites of the Deep Web, visitors must use a Tor browser to access websites with the “.onion” domain. When using Tor, your packets go through several servers encrypted before reaching their destination. When your packets

get sent across the Tor network, it removes pieces of the header that contain information that could identify where the packet is coming from or where it is going (Schar 2013).

The Dark Web is very popular for the black market. Some of the hidden services that the Dark Web users provide are: buying and selling drugs, hacking, anonymity, fraud, pornography, etc.

The Dark Web is a segment or a small portion of the Deep Web, which is a hidden network that cannot be found on normal search browsers. It is popular for user protection and the black market, so it has advantages and disadvantages.

The industries operating to the Dark Web are known as *Darknet markets*; this includes the sale of illegal products hidden from the law enforcement agencies. There are some things that you can buy on the Dark Web:

- **Drugs:** Great quantities of illicit drugs are available in the Dark Web. The website Silk Road did \$200 million in 28 months.
- **Forged Documents:** there you can find fake college diplomas, passports, fake ID cards, driver’s license, etc.
- **Weapons:** on the Dark Web we can find weapons, handguns, explosives. These products are packed in special packages which can avoid X-Rays and are hidden in toys, electronic devices, etc.
- **Hitman:** they appear as people who can help you solve problems, and the service payment is done using Bitcoin, so they provide photographic evidence of the assassination.

**Human organs:** there is also a black market of human organs, where kidneys cost \$200.000, hearts \$120.000, etc (Dange, Malkan and Jha n.d.).

**Table 1:** Comparison between Internet, Deep Web, and Dark Web

Internet Deep Web Dark Web	<b>Indexed</b>	<b>Non-indexed</b>
<b>Restricted</b>	/	Dark Web
<b>Accessible</b>	Internet	Deep Web

### 2.1 Silk Road

The popular website on the Dark Web was the Silk Road, also known as the “e-Bay of Drugs”, it was used to sell drugs, guns, personal data, etc. It was created by Ross William Ulbricht and was launched in February 2011. (Dieffenbacher 2018)

Like Amazon, Silk Road was designed to sell various products, search products by categories and communicate with clients. If you decided to buy something, you would add it to your card. The payment was done with Bitcoin (virtual currency). Each Silk Road user was required to have a Bitcoin address. These addresses were stored on Silk Road’s servers in a “wallet”.

In October 2013, the FBI shut down the Silk Road and arrested Ross Ulbricht (Norry 2018).

## *Deep Web*

The Deep Web is a subset of the Internet that cannot be accessed by traditional search engines because the content in this layer of the web is not indexed. This means that the user cannot search for the content using Google, Bing or any other search engine, but instead, these places can be accessed directly without any instructions on how to get there.

Different types of contents present in the deep web are listed below:

- **Dynamic Content:** or “adaptive content” varies depending on the user’s requests. This means that the response is generated according to a submitted query which represents the user’s preferences. This type of content is usually generated in real time when the user requests the same.
- **Unlinked Content:** are pages which are not linked to by other pages, which may prevent Web crawling programs from accessing the content.
- **Private Web:** pages that require registration and login.
- **Limited Access:** sites that limit access to their pages in a technical way.
- **Non-HTML / text content:** textual content encoded in multimedia files not handled by search engines (Sumit Bindal 2010).

The Deep Web can be used for legal and illegal activity, but it is important to know that it is not all bad; there are enough good things about the Deep Web, such as privacy or anonymity.

For example, a legal activity on Deep Web is when an adopted person wants to try and search for their natural parents or to look up your genealogy history. Legal search is also if you are a student and you can use the Dark Web for searching academic databases where you can research through topics or scientific journals. (Hawkins 2016). However, as we said Dark Web is used definitely for illegal activities: selling drugs, child pornography, trade weapons, etc. (Overton 2015).

### **3. The Advantages and Disadvantages**

The Dark Web is the web that provides more freedom. So the main goal of the Dark Web is the freedom that some do not feel on the surface web.

- **Anonymity** is the ability to hide true identity from others, and to stay hidden without the need of hiding activities that you make.
- **No physical contact:** the important reason why sellers and users choose the Dark Web for sale and buy is that there is not fear that someone will see them or they will be arrested during the purchase of the product.
- **There are many products that are not available in your country:** there are a lot of products, like drugs, that are not so easy to find anywhere. But there you can buy them with just a click.
- **Convenience:** is also an important reason, people have the comfort to order products (drugs, weapons) from home without the need to find a seller.
- **Knowledge:** The Deep Web provides a great space for students and teachers, researchers to find literature from all ways of thinking (CryptoMarket 2016).

The Dark Web also have some disadvantages, people may know that they can never be too safe while buying products on the Dark Web, and for drug purchase, you can end up in jail. Also if the user wants to buy a gun to commit a terrorist act, he can end up in jail for life. Customers can

never be sure that the products they order, is the product they will receive, also you can never check the quality of the product, especially for drugs.

- Risks: surfing in the Dark Web is dangerous because it is not legally – regulated; that provides anonymity which is usual a reason people to get involved in criminal activity like copyright trading, narcotics sale, etc. The results from searching the Dark Web, usually contain malware which makes your computer vulnerable to hacks. (Lynch n.d.)
- Terrorism: there are some misleading web pages that are used by terrorist organizations.

Illegal and ethically disputed pornography: these sites use advanced systems of forums and community regulations, through which they distribute malware to the users. (Dange, Malkan and Jha n.d.)

#### **4. Conclusion**

As cited previously in this research, Dark Web is much bigger than the Internet that we use for everyday needs. It is even bigger than what people think it is.

According to (Kiledjian 2013), most of the Dark Web is just a bunch of webpages that are not indexed by search engines and can only be accessed by knowing their exact address. But there are some other parts of the Dark Web, which are a headache for law enforcement and intelligence agencies.

Although most of the people consider the Dark Web as a negative thing, it has a lot of positive things in it. Things like anonymity, privacy or access to restricted materials or products can be used in many positive ways, as long as they don't hurt or conflict with juridical laws, or more important, ethical laws.

#### **References**

- [1]. CryptoMarket. Crypto Market: CryptoMarket Guide and Help. December 27, 2016. <https://crypto-market.org/dark-web/markets/advantages-and-disadvantages/> (accessed January 2019).
- [2]. Dange, Varsha R., Kaushal Malkan, and Manish Jha. "Monograph on DARK WEB." Pune: Dhole Patil College of Engineering, n.d.
- [3]. Dieffenbacher, Victoria. Case 76: Silk Road (Part 1). Documentary, CaseFile, 2018.
- [4]. "Under The Ocean of the Internet - The Deep Web." By Brett Hawkins. SANS Institute, 2016.
- [5]. Kiledjian, Edward N. What is the Dark Web. Comment, [www.kiledjian.com](http://www.kiledjian.com), 2013.
- [6]. Lynch, Willieam. It Still Works. n.d. <https://itstillworks.com/advantages-disadvantages-risks-deep-search-engines-4164.html> (accessed January 2019).
- [7]. Norry, Andrew. BLOCKONOMI. November 20, 2018. <https://blockonomi.com/history-of-silk-road/> (accessed 01 2019).
- [8]. Overton, Martin. The Dark Web. Research, IBM Security, 2015.
- [9]. Schar, Jill. tom's guide. October 23, 2013. <https://www.tomsguide.com/us/what-is-tor-faq-17754.html> (accessed January 2019).
- [10]. Sumit Bindal, Himank Singh Muktawat. Deep Web. Uttar Pradesh, India, March 2010.
- [11]. TheeDesign. May 29, 2006. <https://www.thedesign.com/blog/2006/differences-between-the-internet-and-world-wide-web> (accessed January 2019).
- [12]. Torproject. n.d. <https://www.torproject.org/about/overview.html.en> (accessed January 2019).