



DARKNET MODULE SUMMARY

#DABEI-Geschichten – an initiative by Deutsche Telekom AG



LIFE IS FOR SHARING.

PUBLICATION DETAILS

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FURTHER INFORMATION

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WHAT IS THE DARKNET?

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The Darknet exists parallel to the Clearnet, the Internet that we all know. Servers and IP addresses are encrypted in the Darknet making it virtually impossible to track data transfer. This allows users to interact anonymously. Experts estimate that the Darknet is considerably larger than the Clearnet and is used by millions of people worldwide every day.

How can I search the Darknet?

In the Darknet, web pages cannot be accessed using conventional search engines such as Google or Bing. Therefore, searches take place via special Darknet search engines such as Duckduckgo.onion or Torch.onion, as well as via link lists to websites in the Darknet. The addresses for these web pages in the Darknet only consist of a combination of numbers and letters, such as s35tz4h.onion.

How do you pay for things in the Darknet?

The crypto currency Bitcoin is used to pay in the Darknet. Bitcoin is a digital currency. They are subject to extreme fluctuations in value, since no central institution (like a central bank) is responsible for them. They can be bought from so-called Bitcoin-dealers and transferred back to real money. This process is not prohibited and within the law. Bitcoins are transferred anonymously in the Darknet with the help of special peer-to-peer applications. Opinions on the crypto currency Bitcoin vary amongst the population just as much as the perception of the Darknet itself. On the one hand, Bitcoins are secure against forgery. They do however also bear high risks such as fast loss of value.

How can I get into the Darknet?

The TOR browser allows you to surf the Darknet, similar to Internet Explorer in the Clearnet. The symbol for the TOR browser is an onion. The many layers of the onion symbolize the layers that data passes through during encryption. As a result, websites take time to build up. This can take up to several minutes. However, it is the only way an anonymous connection can be established.

How can I communicate in the Darknet?

The Darknet is predominantly used by two groups of people:

1. People that communicate anonymously (for example, whistleblowers or victims of political persecution). The Darknet enables them to exchange sensitive data, the discovery of which could potentially endanger human lives.
2. People engaged in illegal activities (for example, arms dealers or drug traffickers). The anonymity protects them from negative legal consequences.

How safe is the Darknet?

Simply surfing in the Darknet is not illegal, but the actions carried out in it sometimes are. Illegal activities such as the purchase of arms or drugs can have legal consequences because the encrypted data transfer does not offer complete protection. There are also several security vulnerabilities in the Darknet that can lead to the discovery of a user's identity.

THE “EVIL” NETWORK

Anonymity in the WWW

Anonymity is not guaranteed in the Clearnet – but in the Darknet, it is. However, this also helps people with criminal intentions cover their tracks. The purchase and sale of drugs, weapons and counterfeit passports on illegal marketplaces is increasing.

Criminal Marketplaces

Trading in the Darknet takes place at criminal marketplaces, so-called “Darknet markets”. The appearance of the marketplaces is reminiscent of legal platforms such as Amazon or eBay. In May 2019, investigators from Europe and the United States confiscated many large Darknet marketplaces such as Dream Market, Valhalla and Hansa Market. The supply of illegal goods and services in the Darknet is nevertheless large.

Dealing Drugs in the Darknet

However, recent studies show that the Darknet is most often misused for drug trafficking. Cannabis, cocaine, ecstasy, LSD or crystal meth. It is also just as easy to buy drugs in the Darknet: a simple search in the Clearnet is all it takes to find out how.

THE “GOOD“ NETWORK

Anonymity in the Darknet

Many human rights activists, members of the opposition, journalists and politically persecuted people are now avoiding the Clearnet. They are afraid of surveillance and persecution and therefore communicate in the Darknet. In the Darknet, they can exchange and publish information without fear of negative consequences.

ANONYMITY - WHO DOES IT BENEFIT?

- **Whistleblowers**
Whistleblowing refers to exposing maladministration or illegal activity in companies, governments, administrations, etc. These abuses must be of considerable scope and of general interest. A whistleblower is usually a part of the institution itself and reports about his or her own experiences. In doing so, whistleblowers not only risk their jobs, but also have to reckon with disciplinary measures.
- **Journalists**
Journalists use the Darknet to obtain and publish information. Today, renowned newspapers such as "The Guardian" also have their own digital mailbox in the Darknet to facilitate the exchange of sensitive data. This allows them, for example, to come into contact with whistleblowers.
- **People under censorship**

People from countries where certain websites such as Facebook or Google are censored use the Darknet to circumvent these barriers. They can move and act freely in the Darknet. They can contact other people, disseminate information and also be informed about current developments.

- Politically Persecuted People

The Darknet is a place where the anonymity of the politically persecuted is preserved and protected. The reasons for political persecution vary: sexual orientation or criticism of the government can quickly become a threat to people living in autocratic states. These people can make themselves heard in the Darknet, communicate and – if they live in exile – contact their relatives and acquaintances.

- Human Rights Activists

Human rights activists are active wherever human rights have to be protected. To do this, they use the Darknet, as for example during the Arab Spring. Human rights activists can also be opposition members or activists who criticize the state and represent their democratic rights in the sense of freedom of expression.

Edward Snowden

The US-American whistleblower Edward Joseph “Ed” Snowden is a former employee of the CIA, NSA and DIA. He revealed the surveillance and espionage practices of United States and British intelligence agencies, which triggered the NSA affair. With the help of the Darknet he was able to publish his information on the abuses of citizens' data protection. After publication, he fled via Hong Kong to Moscow, where he currently lives in political exile.

Digital Mailbox

Renowned intelligence services are especially interested in sensitive information. In order to provide whistleblowers with a protected space for exchanging this information, the US magazine “The New Yorker” set up a digital mailbox in the Darknet in 2013. Meanwhile, “The Washington Post”, “The Guardian” and other media outlets use a Darknet SecureDrop page to contact informants. SecureDrop is a platform for secure communication between whistleblowers and journalists. The TOR network is used here for anonymization. The installation of SecureDrop is therefore only accessible as a hidden service of the TOR network with an .onion address. When the sensitive documents are uploaded, the whistleblower is assigned a randomly generated code name with which he or she can send their information anonymously to journalists. Furthermore, it is possible to manage a Darknet e-mail account that is, in comparison to traditional e-mail services, protected. This makes it possible for journalists and whistleblowers to contact each other anonymously.

THE VALUE OF MY DATA

How valuable is my data?

Take a look at your everyday life: you go shopping, get petrol, go to the post office and shop at a home improvement store and then surf the Internet in the evening. In all of these situations you will probably be offered all kinds of discounts or free gifts. Most of them are even free! All you have to do, is disclose your data. Your data is more valuable than you think. Trading data is a million dollar business. They are illegally sold by the thousand in the Darknet. This trade is based on data theft. This is why your data is worth hard cash. Some data is more valuable than other. The more private the data is the higher its value. This is why passwords and login data are more valuable (€ 69.55) than data about your sex (€ 2.66). Check the infographic in the download section to see how much your individual data is worth. On the following pages you will find scenarios which you are likely to recognize from your everyday life. Learn more about the actual worth of your personal data.

The Loyalty Card

We have all experienced it – you are at the checkout counter in the supermarket and the cashier asks you: “Do you have a Payback or loyalty card?” But why is the supermarket interested in your loyalty card? Think about it: How much is your customer data worth to the supermarket?

This free card promises all kinds of rewards or discounts and is very popular with customers. However, customers pay for it in a different way, namely with their personal data. The data on a customer's purchasing behavior is collected using a loyalty card in order to then perfectly adapt products to a customer's needs in a store. For example, data such as the place and time of purchase, how much products cost and especially what and how often something is bought are stored with the help of such cards. Do you buy a certain product regularly? Have you recently changed brands? All this information is extremely interesting to businesses and manufacturers and provides information on supply and demand.

Health-Related Data

New Job – Better Life, Right? You have a new job and your new employer asks you to take out the necessary insurance policies. You use the Internet to compare prices and find the insurance policy that is tailored to your needs. All you have to do is enter some of your personal data. Supposedly, you will be sent the best suggestions per e-mail within the next few days. Instead, your phone begins to ring constantly and every call is from a new insurance company that wants to win you over. Think about it: Who will benefit from that information in the future?

Your health is important and precious – not just for you! The average value of health data is € 54.87. In the USA, health data is worth € 76.06, twice as much as it is in worth in Europe (€ 32.11). Health-related data is also traded in the Darknet.

The Value of your Family Status

You are out for a drink and meet a good friend. But she seems like a completely different person. Suddenly you notice it: she is wearing a beautiful engagement ring and is not drinking her favorite cocktail, as she usually does. She has wonderful news: she is expecting a baby! You spend the evening talking about the future and her plans. Think about it: How much would this information be worth in the Internet?

Information about turning points in a person's family life, such as an imminent marriage or birth, are of particular interest to the economy. This information is worth an average of € 7.62.

“My Timeline”

It happened again while vacuuming the floor. One false move and two glasses lay broken on the floor. So you drive to the next store to replace your favorite glasses. You turn on the navigation app on your smartphone, activate your GPS signal and your app shows you the store closest to you. As soon as you get there, you pick out new glasses and while paying for them the cashier asks, “Could you give me your zip code, please?” Without thinking about it, you give her your zip code and she types it into the cash register.

Think about it: Why is this so important? How much is the information about your address and current location worth to the store?

Your physical location, especially your place of residence, is very valuable. That is why many people are averse to giving this kind of information to others. They are afraid it might be used by criminals, who could for example, rob their homes while they are away. A private address is worth about € 11.84. As a rule, shops use this information to adapt their products and services to the region and to track the route used to get there. In some apps, not only your location is queried, but GPS data is also stored. This means that, not only is the location of a person monitored at all times, but also their range of motion is defined by navigation apps, such as Google Maps. This information is worth € 14.77 and therefore, even more valuable than a private address.



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