

“The Dark Sides of the Web”

Final Project Proposal Megan Hoogenboom

“The darknet – a collection of networks and technologies used to share digital content. The darknet is not a separate physical network but an application and protocol layer riding on existing networks. Examples of darknets are peer-to-peer file sharing, CD and DVD copying, and key or password sharing on email and newsgroups”.¹

For my final project I want to focus on the dark sides of the net. There are different definitions for certain places online, but the resemblance of all these places can be defined as “Places on the internet which are not commonly accepted as 'normal' places to visit”. They are not commonly accepted because they are NSFW (Not Safe For Work)² and people often only share their nicknames and no personal information to keep their offline identity secret. There are three definitions that are used to describe dark sides of the net: the darknets, the shadow net and the deep web. In the next parts I will explain these in some more detail.

As a graphic designer, I want to focus on the design of these dark places. What are the style-elements that are used, for example do they use dark colours, maybe to scare people off? These designs can be really specific and I want to make a style-definition for the deep web. I want to compare the shadow web to darknets. The shadow web are the findable places on the net, with search engines, which are not commonly accepted as 'normal' places to visit. This term is only used a few times, and has no referential definition. I created this term myself to describe these websites which people can find, but which are also part of a darker side of the net. The most reachable darknet is Freenet, which is fully explained further in the text. The first step in my research will be to find suitable shadow websites, and if possible, more darknets. What elements do they use to create a webpage, the fonts, the colours and the pictures. Are they suitable for every web browser and what is the format used? **The first main question in my research is: What are the design strategies and design elements used in the deep web?**

The second step in my research is to have a closer look at the user. In all my projects the user has played a big role, see the explanation of two of my thematic projects below. The user is not only user but also the creator of content in the deep web, for instance child-porn, illegal music, movies and games exchange on torrent sites and criminal actions online. The user is hiding behind a nickname in the deep web, and uses different tools to stay anonymous, like Freenet. **So the second main question, next to the design question is: What nicknames do the users create on different deep websites and how do they hide behind their screens?**

The first time darknets, with a specific definition, are mentioned is in an article by Peter Biddle, Paul England, Marcus Peinado, and Bryan Willman in a research paper for Microsoft Corporation in 2002.³ In earlier papers, like “Uncovering the Dark Side of the world wide web” by Marcus Gibson⁴, there are speculations and

1 Peter Biddle, Paul England, Marcus Peinado, and Bryan Willman. “The Darknet and the Future of Content Distribution” Microsoft Corporation, 2002. http://www.bearcave.com/misl/misl_tech/msdrm/darknet.htm

2 According to the urban dictionary: Not Safe For Work. Used to describe Internet content generally inappropriate for the typical workplace, i.e., would not be acceptable in the presence of your boss and colleagues (as opposed to SFW, Safe For Work). <http://www.urbandictionary.com/define.php?term=nsfw>

3 Peter Biddle, Paul England, Marcus Peinado, and Bryan Willman. “The Darknet and the Future of Content Distribution” Microsoft Corporation, 2002. http://www.bearcave.com/misl/misl_tech/msdrm/darknet.htm

4 Marcus Gibson. “Uncovering the Dark Side of the world wide web” Financial Times, October 20, 2000. <http://cryptome.org/dark-spy.htm>

assumptions that there is something like the dark side of the web, but they don't mention darknets as given networks. Gibson talks about how Stephen Whitelaw and his team mapped the dark side of the web, and how they found these places, and categorised them. Some of the categories were: pornography, fraud, anarchism, "freaking", virus creation, promoting violence, cyber terrorism and hacking. The team found a lot of the information on newsgroups. Newsgroups emerged from the very beginning of exchanging information via computers, starting with BBS (Bulletin Board System).⁵

What exactly is a darknet or where is the dark side of the net? Different definitions are given to these words, and different words are used to describe it. Michael K. Bergman talks in his "White Paper: The Deep Web: Surfacing Hidden Value" about the surface and deep web.⁶ He compares searching with a search engine to dragging a net across the surface of the ocean. There will be a lot of information about the ocean in the net, but there is more information in the deeper parts of the ocean.

The term deep web can be seen as an umbrella which covers everything that is not common on the internet. With common I mean, commonly known and accepted by the majority of people as normal or acceptable. In the deep web one can find the darknets, the closed networks and the dark places of the net, which can be websites with no links to other websites, abandoned websites, stolen URL's and so on. A darknet cannot be found with a search engine, because it is closed for non-users.⁷

Bergman also states that the deep web (in 2001) was 400 to 550 times bigger than the surface web and receives fifty per cent more monthly traffic. He quotes Dr. Jill Ellsworth with the phrase "invisible web", which refers to information that is invisible to conventional search engines. This is another way to explain the deep web, but in fact it is inaccurate. With today's search engines and with surfing the web, these places are not hidden anymore.

With Freenet, created by Ian Clarke, you can visit the dark side of the web without being found, you use the net anonymously.⁸ According to their own website Freenet is simply explained "an alternative world-wide web", and more broadly explained:⁹

- ◆ *a web without censorship or surveillance;*
- ◆ *a web which allows you to publish and view any type of information with complete privacy and anonymity;*
- ◆ *a web which honours your rights to individual choice as to the information you choose to view and/or publish;*
- ◆ *and a web which allows you to blow the whistle on corrupt or abusive practices, without fear of it being traced to you.*

Freenet is an application which is also used by people who mean harm or want to distribute illegal information or content. It can be defined as a darknet. When Andy Beckett explains the application, he defines it as when you install it on your computer, you can enter a previously hidden world. The content available on Freenet differs from the "Iran News" to the "The Terrorist's Handbook". Ian Clarke admits that there is child-pornography on Freenet, but he states that if he would modify Freenet, it would be the end of it. He tried to get rid of it by installing a filtering-virus, but this didn't work because of copyright issues and because of the fact that other users who used this became virus targets. The Freenet will play a big role in my research, it is actually the starting point of my research to darknets and their design and content.

5 Kevin Butler. "SIMPLE GUIDE TO NEWS SERVERS/NET MAIL GROUPS"
http://members.tripod.com/~kevin_butler/newsgroups.html

6 Michael K. Bergman. "White Paper: The Deep Web: Surfacing Hidden Value" The Journal of Electronic Publishing, Volume 7, Issue 1, August, 2001. <http://quod.lib.umich.edu/cgi/t/text/text-idx?c=jep;cc=jep;q1=bergman;rgn=main;view=text;idno=3336451.0007.104>

7 Andy Beckett. "The dark side of the internet" The Guardian, November 26, 2009. Chapter: Unfathomable and mysterious. <http://www.guardian.co.uk/technology/2009/nov/26/dark-side-internet-freenet>

8 Andy Beckett. "The dark side of the internet" The Guardian, 26 November, 2009. Introduction. <http://www.guardian.co.uk/technology/2009/nov/26/dark-side-internet-freenet>

9 <http://Freenet.sourceforge.net/whatis.html>

Beckett not only talks about Freenet and other darknets. He also quotes the Metropolitan Police “A lot of internet criminal activity is on online forums that are not hidden, you just have to know where to find them”. By which they mean the shadow web. Hence, a comparison between shadow websites and darknets, with emphasis on their designs and users, will be a focal point of research in this project.

Next, I want to take a step back from being the user of the internet. Making people more aware of what this medium is doing and make the users more aware of themselves and of others. The user must be made more aware of the shadow web, the deep web and the darknets and what content one can find there - they must leave their fears and phobias behind. I want to communicate that there is more than the surface web, the user can use Freenet and doesn't have to be afraid the end up at a forbidden website, they can be anonymous.

In the NRC Next, a Dutch newspaper, I read an article that young people don't surf the web anymore, and can't search properly for something they need.¹⁰ Is this because the surface web is getting more and more commercial? Or because the hidden deep web is getting more and more hidden? Andy Beckett talks about the commercializing of the internet, and that because of this the darknets are getting bigger and used by more and more people.¹¹ But the people who don't know where to find these places or don't know their existence, are also important to reach, not only the users.

This project will first serve as a guideline for the users and non-users and secondly as a promotion against censorship and commercializing of the internet.

10 Marie-José Klaver. NRCBlog, August 6, 2009. <http://weblogs.nrc.nl/klaver/2009/08/06/jong-en-oud-verdwaalt-op-internet/>

11 Andy Beckett. “The dark side of the internet” The Guardian, November 26, 2009. Chapter: Unfathomable and mysterious. <http://www.guardian.co.uk/technology/2009/nov/26/dark-side-internet-freenet>

With my first thematic project at the Piet Zwart Institute, I looked at abandoned spaces online, and in my essay I compared these spaces to abandoned spaces in the physical world. The user was very important in this project, although the basic element was that the user was no longer present, and another element was the effect of this abandonment.

The outcome was an online book, which contained all the elements of 6 abandoned websites taken apart. I researched the elements and looked at the design, that made a website into an abandoned website. I showed of each website a screen-shot, the domain-name, links and parts in the HTML-code, the meta-data of the images and the part where you can see that this website is abandoned. At the second part of the book I made a template on how to make your own website look abandoned. This is because a lot of people use online, standard templates for their own website. And with this template you can make your website look unique, with a new approach. This last element will also play a big part in my final project: the template or style-definition to certain websites.

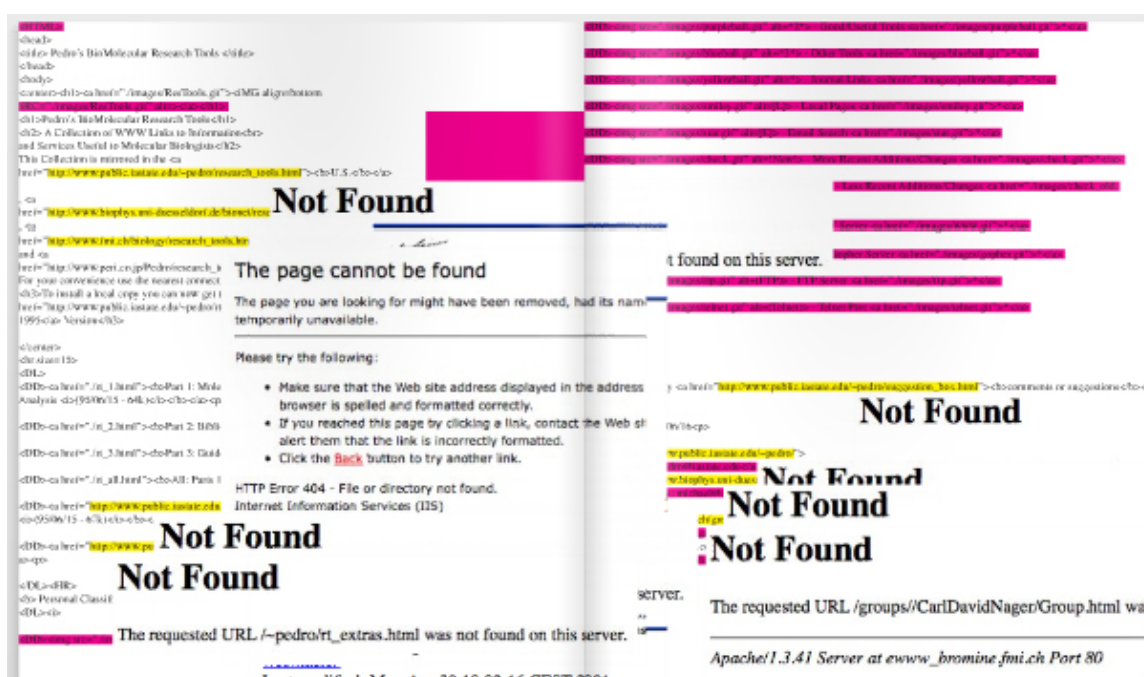


Image 1: A spread from the book "Online abandoned spaces."
http://issuu.com/onlineabandonedspaces/docs/template_boek2_lossepaginas_vooronline

The abandoned websites cover an alternative place on the net. These places are hard to find, you can only reach them by surfing the net, not by searching with a search engine like Google. Because these places are somewhat hidden, they become more interesting and special.

In the last thematic project before the final project, I already wanted to focus on dark(er) places. The projects were situated in a Rotterdam Belhuis: 'Ace Teleboutique' (this is a sort of internet-cafe, they have phones to make cheap international calls and cheap internet. Often the computers are old and not clean). In focus of my final project I chose to focus on the darker sides of these Belhuizen. So, I made a fake research poster and flyers to the bacteria that exist in these places. Keyboards are known to be dirty, and a breeding place for bacteria. I search the net for researches to bacteria that were found on keyboards, public phones, handles in public places and counters of stores. These were all real research-projects, posted online and I used them like they were performed in the Rotterdam Belhuizen.

The poster design was based on the design of different periodic tables of the elements. These posters are very well designed, with a special function for each placing and form. The fact that I used this design will also be an element in my final project. If I make a website or a user-profile on Freenet, it has to be designed like the other darknets and shadow websites.

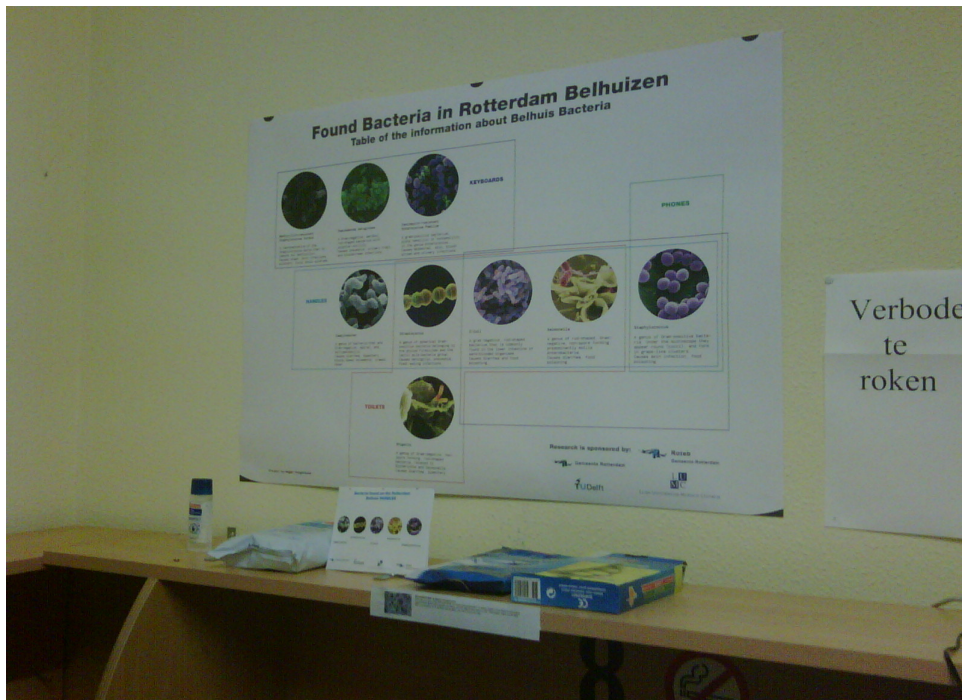


Image 2: The poster of the “Found bacteria in Rotterdam Belhuizen”, On the counter there are cleaning wipes and disinfecting soap.

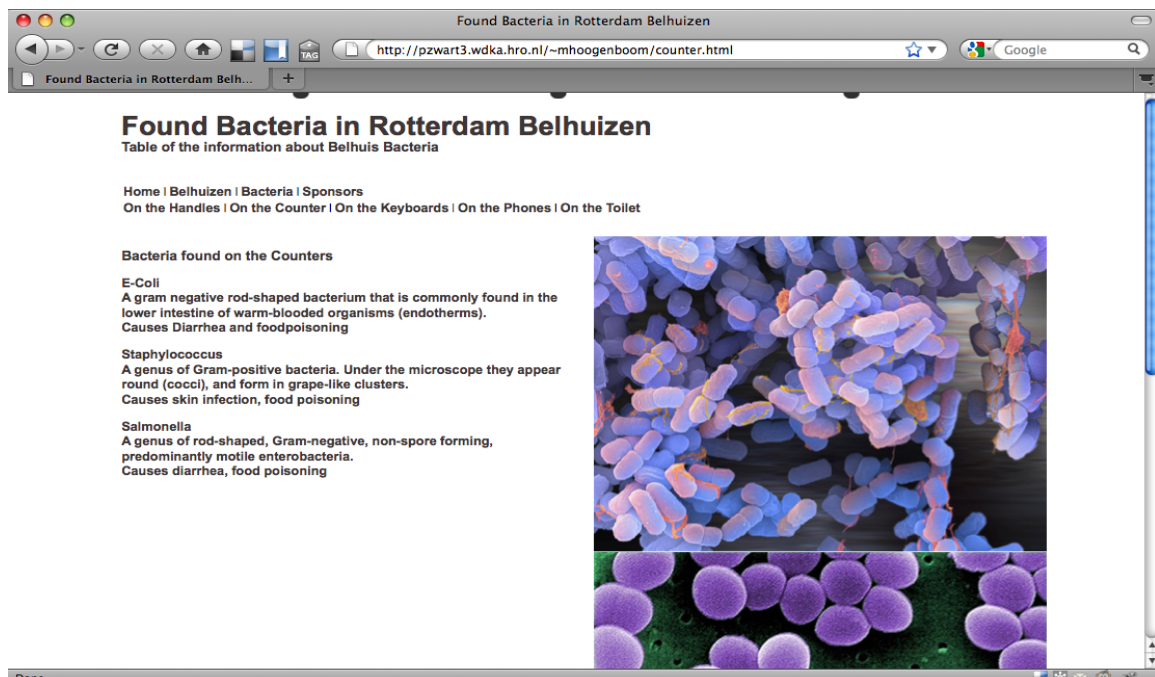


Image 3: A screen-shot from the accompanying website to the project. This website was also available to visit in the Belhuis exhibition. <http://pzwart3.wdka.hro.nl/~mhoogenboom/counter.html>

In both projects I gathered information, edited it and gave it back to the users. But I also did something else, a small add-on to the project. This is an important element to implement in my final project, when I have a finished project always see if I can make an add-on to give the project more meaning and power, to take it a step further.