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How to increase page ranking using organic search engine optimization (SEO): a case of Codemenders Oy

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How to increase page ranking using organic search engine optimization (SEO): a case of Codemenders Oy

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Abstract

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Codemenders Oy was founded in October, 2012 in Finland. The company's focus is to help increase the ease of productivity and performance of businesses and individual customers alike in their day-to-day activities while utilizing cloud based technologies.

Their latest product Qtip.me, a cloud based queuing application, is designed to enhance the circulation of queues by removing the need of customers to wait in long lines while maintaining the possibility to obtain queuing tickets remotely using a smartphone app available for Android and iPhone operating systems.

The product was tested for the first time in Arctic15: Exit Path conference as the official queuing partner and managed to successfully arrange more than one hundred, one-on-one meetings, without any observed errors.

Our client has expressed the need for optimizing their latest product's website in order to achieve a higher ranking on major search engines with the aim to be ranked in top three search results.

The primary goal of this thesis is to conduct research on search engine marketing and implement Search Engine Optimization for www.Qtip.me.

SEO, Page ranking, Web Crawler, Google Algorithms

Laurea-ammattikorkeakoulu
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Tiivistelmä

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How to increase page ranking using organic search engine optimization (SEO): a case of Codemenders Oy

Vuosi 2015 Sivumäärä 38

Codemenders Oy perustettiin lokakuussa 2012 Suomessa. Firman painopiste on auttaa helpottamaan jonotuksen palvelua asiakkaiden päivittäisessä toiminnassa hyödyntäen pilvi perustuvaa teknologiaa.

Heidän uusi tuote Qtip.me, joka on pilvi pohjainen jonotuksen sovellus, on suunniteltu parantamaan jonotusta poistamalla asiakkaiden tarve odottaa pitkässä jonossa, kun taas ylläpitää mahdollisuus saada jonotuksen lippuja etäyhteyden avulla älypuhelimien app ohjelmalla, joka on saatavilla Android ja iPhone käyttöjärjestelmissä.

Tuote testattiin ensimmäisen kerran Arctic15: Exit Path konferenssissa virallisena jonotuskumppanina ja onnistui järjestämään yli sata, suoraan kokouksista, ilman havaittua virheitä.

Asiakkaamme on ilmaissut tarvetta optimoida heidän uusin tuotteen verkkosivuilla, jotta saavutetaan suurempi sijoitusta suuressa hakukoneella. Tarkoituksena on tulla sijoitetuksi kolmen parhaan hakutuloksissa.

Opinnäytetyömme tavoite on tehdä tutkimusta hakukonemarkkinointia ja toteuttaa hakukoneoptimointi www.Qtip.me sivuille.

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1 Introduction & Key Problem

1.1 Thesis Introduction

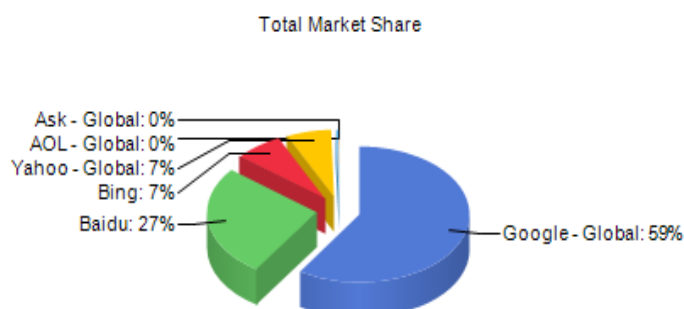
It is common knowledge that the use of digital media such as computers and smart phones has risen relatively fast in the last decade and with it the need for digitalization of information as well.

Providing digital information in a form of website as a first touch-point, between an organization and a third party of interest or a persona in general, has become one of the main tools in reaching masses and introducing line of work by various organizations, ranging from large corporations to as simple as discussion boards. This method aids companies in reaching more potential customers and helps them maintain their customer base while enhancing important processes such as purchasing, customer relationship management, support on products and services and so on (Suleimanian, Tabrizi, & Maleki. 2014).

According to Netcraft, the total number of active websites in a logarithmic scale as of January 2015, was more than 177.12 million, as well as 876.81 million unique host names. These amounts fluctuate daily as some websites cease existing and more are born within a six month period. However, the important fact is that the rapid digitalization of information has created challenges for websites aiming to reach their target audiences.

As the online community or the use of internet expanded, the need to be able to search and find information in as short time as possible on the internet increased gradually. Thus a platform was invented to aid users in that matter called Search Engine.

Search engines have existed for approximately twenty-five years now and according to Netmarketshare (2015), the most popular search engine as of February, 2015 is Google with 58.44% of the total global market share, followed by Baidu with 26.70% and Bing with little over 7% (Figure 1). Therefore, for the purpose of this thesis project, special focus will be given to Google, as the main search engine of reference upon research and implementation of this project.



February, 2015

Search Engine	Total Market Share
Google - Global	58.44 %
Baidu	26.70 %
Bing	7.07 %
Yahoo - Global	6.47 %
AOL - Global	0.30 %
Ask - Global	0.12 %
Lycos - Global	0.01 %
Excite - Global	0.00 %

Figure 1 Desktop Search Engine Market Share

1.2 Study Benefit

The main objective of this project is to further develop the content of the site and structure the use of key words in such a way that will contribute in higher ranking of the website on search engines. Understanding this concept might also help to increase the number of key-words that customers use to find services. In this case we are asking ourselves how the properly structured keywords are going to increase the visibility of the website.

The following are few advantages that will be achieved, and this can shortly explain why we need to optimize websites:

- Increase in page ranking.
- Services offered by our client company will be easily found.
- Will attract more potential customers (traffic will be increased).
- Sales will be increased.
- Gain popularity and trust among search engines.

1.3 Objectives

The main objective of the thesis is to enhance the website so that search engines can access the content of the website, meaning developing meta descriptions, page titles, heading tags and other website elements using keywords obtained from research with the overall goal to increase the visibility of the client's website and produce higher ranking on search engine results.

According to Shakuntal (interview 10 October 2014) the website has a scarce web traffic and rank from the major search engines like Google. This is due to the nature of business and its relatively new market.

The SEO implementation is aiming to structure the keywords in the form of descriptions into different sections of the website. Giving each section unique description to expand the possibilities of web crawlers to reach the keywords and deliver the website to the search engine.

The sections of website parts to be optimized were as follows;

- Page headers
- Page titles
- Meta descriptions
- Media descriptions, pictures, video
- H1, H2 and so on.

There are several advantages of good SEO practices and they are the essential goal of the project. These advantages can illustrate the needs of SEO and may result in the following:

- Increase web page traffic
- Increase visibility among the service users
- Higher page ranking and make the website stand out
- More user friendly website
- Expand market share and business growth
- Build brand awareness
- The nature of SEO results is more permanent and so on.

1.4 Limitations

During the interview it was challenging for the respondents to fully understand the questions asked. Many were not familiar with the term 'keywords' especially when related to the services offered by the client's website. As the interview took place, few of the responses were filtered and omitted for further development of keywords and many of the answers were not relevant to the questions asked.

Due to the nature of our thesis project, it was not possible to send the interview questions electronically as the interviewees often required further elaboration on the topic. This was tested by sending the questions electronically to a group of employees where the resulting outcome was not satisfactory as the questions were misunderstood. However, when the inter-

view was conducted physically to the same group of employees, the responses to the topic proved to be more accurate.

Another limitation worth mentioning is that we were not allowed by our client to implement any SEO directly to the website. Instead we were given a few HTML files that we could modify accordingly, and send to our client, upon which he would decide which parts to implement. It would have been better if we could implement directly on the webpage, as it would have let us see the exact results and allow us to modify further documents and do further assessment on error codes and so on.

A specific timeframe was allocated for SEO as well, which was one month after the interviews were conducted and it was planned to be implemented step by step efficiently. It would have given us enough time to test the whole process by implementing some parts of SEO where at the same time we would observe the results before proceeding with complete implementation. Due to the holidays of our client, delay was faced and this had an impact on the deadlines for implementation. Instead of completing it in one month, we had to complete it within one week.

The last of the limitations is that keywords derived from the interviews were further omitted by our client. Client decided on which keywords were to be used, this may or may not have a slight impact on the quality of SEO implemented which would affect the end results at some point.

1.5 Terms Definition

Search Engine

“On the Internet, a search engine is a coordinated set of programs that includes: A spider (also called a "crawler" or a "bot") that visits websites that are allowed to be searchable by search engines and reads them. It is a program that creates a huge index (sometimes called a "catalog") from the pages that have been read. It is also a program that receives your search request, compares it to the entries in the index, and returns results to users. An alternative to using a search engine is to explore a structured directory of topics” (Rouse 2011).

Search Engine Optimization

According to search engine land, search engine optimization is the process of acquiring web traffic from the good and natural search results on search engines. Major search engines could be Google, Bing and Yahoo.

HTML

HTML stands for Hyper Text Markup Language, this is the markup language that is used to describe website content. In clear words it is computer language that allows creation of websites (w3schools).

Web Page Header

Web Page header is the short version of the home page that appears on top of each page in the website, function wise it works closely to home page but with limited access. Web Page headers also hold the identity of the website as well as the navigation (Lynch & Horton 2009).

Meta Data

“Metadata is data (information) about data. The <meta> tag provides metadata about the HTML document. Metadata will not be displayed on the page, but will be machine parsable. Meta elements are typically used to specify page description, keywords, author of the document, last modified and other metadata.

The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services”. The function of the metadata is therefore to locate the resources that need to display the content of the website to the search engines (w3schools).

Web Page Titles

According to Walters (2015), web page titles or title tags are the code part of the web page that appears on the top. This part of the website is displayed in search results on the search engines as well as in the social media in case users share the website to social media. This is one of the most important parts in implementing SEO.

Media Data Descriptions

According to Walters (2015), metadata descriptions are the brief descriptions of the services offered by the website (mainly explaining what the website is about), these descriptions are usually shown in search results below the title of the page.

Page ranking

Web Page Ranking is the system used by search engines i.e. Google to rank websites. It decides which website comes first on the search results (the actual page ranking). Ranking based on how relevant content of the website is to a given topic in the search (Enge, Spencer, Fishkin & Stricchiola 2009, 289).

Web traffic

According to Barrett, web traffic is the amount of inbound and outbound data received by visitors to the website. This data is the communication between the pc and the web servers.

Domain name

“A domain name is a unique name that identifies a website. For example, the domain name of the Tech Terms Computer Dictionary is “techterms.com.” Each website has a domain name that serves as an address, which is used to access the website.” (Tech Terms, 2012).

2 Literature Review

2.1 Search Engine

A search engine allows one to find information on an entity, whether it be a website, product or service by performing search queries using keywords. Usually the result of search queries displayed are webpage URLs, however users have the possibility to choose the type of information they are looking for. It may display other forms of data such as images, books, music and videos and so on as well.

Search engines in general use algorithms or small programs called web crawlers or spiders and a series of processes and calculations to crawl the internet and index websites in order to create databases of data. Upon mining for information using keywords, the search engine starts looking for sites in its database which contain information related to those keywords and present it to the user. The information that is presented is usually ranked first, second, third and so on, resulting in numerous consecutive pages of data.

The relevance of information found is not always guaranteed, as the finding of data takes into account several factors; one of them being whether the website that one is interested to find has included keywords in its content properly or implemented some form of internet marketing, which poses a determining factor on page rankings with regards to search engines.

Internet Marketing

In 1990, the first search engine was introduced named Archie. It was a File Transfer Protocol - FTP based site that hosted an index of downloadable directory listings (Wordstream). It was primitive with regards to its capabilities as crawling the internet and fetching relevant information was not possible. The few websites that existed at the time could only be accessed by the ones who knew the exact website addresses. This made it difficult for companies and organizations to reach higher volumes of audience. However, as the number of websites and internet users increased, the demand for finding relevant information became higher (Suleimani et al. 2014).

The invention and improvement of search engines not only was able to address that demand, it brought new opportunities in business and marketing fields. It enabled businesses, institutions, news stations, and bloggers and so on, to reach more of their target audiences. In fact nowadays with the amount of information produced each minute, it is impossible to find anything without using a search engine (Suleimani et al. 2014).

From a service provider's point of view it is perceived that the higher ranked a webpage is, the higher the volume of audience it will reach. Similarly from a user's point of view, the higher a website is ranked, the more trustworthy or relevant and legitimate the website will appear. Therefore, service providers who have presence on the internet aim for their websites to be ranked in top three or if not, at least first page of search engine results (Suleimani et al. 2014).

Based on an eye tracking study conducted in 2005 by Mediative (formerly Enquiro), it was discovered that users searched in a triangular pattern, starting at the top left corner where they believed the first organic search result started, reading horizontally towards the right side before moving to the second search result and so on. The lower the search result the less interest in reading further (Figure 2).

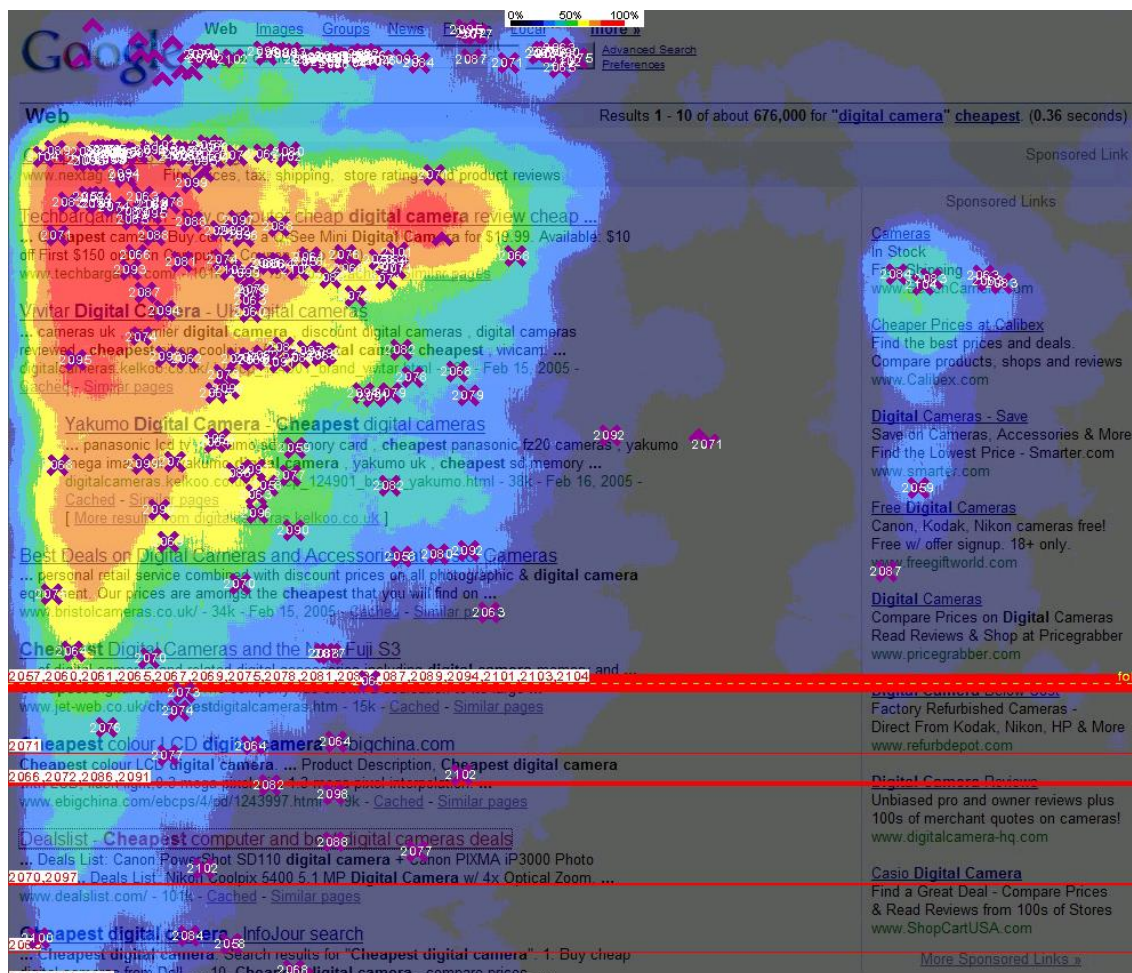


Figure 2 Eye tracking study of user's focus on search results.

Similarly in 2004, Laura A. Granka, Thorsten Joachims and Geri Cay of the Cornell University, conducted studies using eye tracking software with a group of undergraduate students regarding click distribution on Google search engine (Figure 3). Results indicate that 56,3 % of the users clicked on the top highest result, followed by the second highest with 13,4 % of the total clicks and the third highest with 9,82% and so on. The lower the search result the less percentage of clicks it was able to generate.

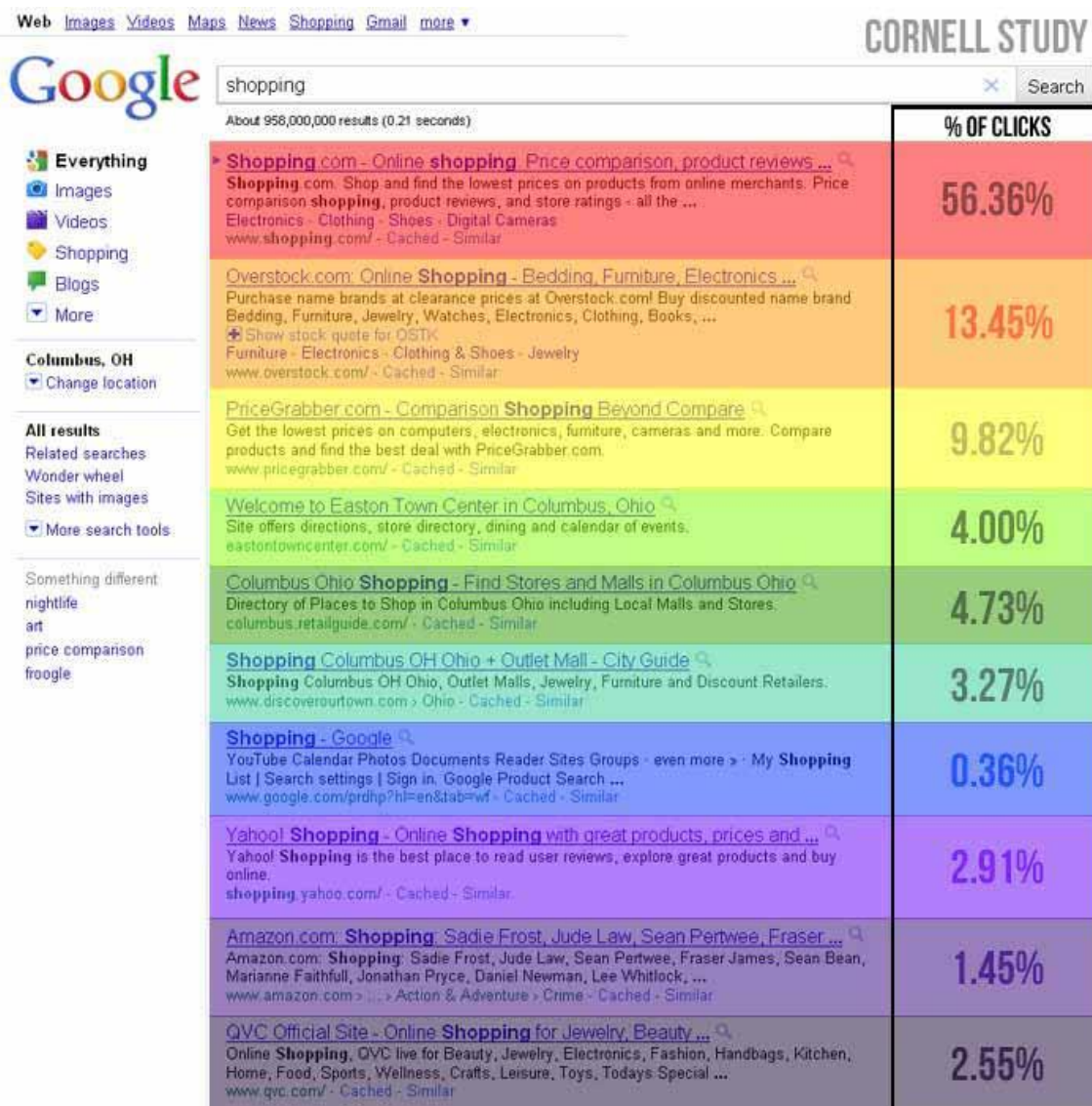


Figure 3 The Cornell University eye-tracking study data on click distribution

When a website is created, normally it will not be ranked as high in search engine results due to many other websites that are similar in content which poses certain strengths i.e. some websites may be mentioned in various other websites, have larger amount of traffic and so

on. In other words they are perceived by search engines to be more genuine and of greater relevance.

Thus in order to have a better outcome in rank competition, service providers are able to implement one of the two techniques of Internet marketing available: Search Engine Marketing or pay per click - PPC, and Search Engine Optimization - SEO (Figure 4).

PPC -Pay per click

Pay per click or in some cases known as Paid ads, is a form of Internet marketing where a company pays money for its webpage to be ranked and displayed in top results of the search engine. The PPC payment method is offered in a bidding form. Whichever company makes the best offer i.e. pays the most, will be ranked the highest. The drawback of this is that the moment the company stops paying, the ad is disappeared.

This technique is a fast way to achieve good ranking, however, businesses that use PPC are not always viewed as trustworthy or relevant sources by customers.

Organic SEO

Organic search or search engine optimization, does not involve purchasing of ranking position as the PPC does. It involves for the most part technical knowhow, background in marketing and a creative mind.

Good SEO may be achieved through optimization of website content by structuring it in such a way as to make it more search engine friendly. Meaning implementing relevant domain name, page titles, keywords, website descriptions and so on.

Search engines, especially Google are known lately to value websites that implement customer centered descriptions on relevant pages. In these descriptions as well as other parts of websites such as media titles and domain names, one has the opportunity to include keywords in a strategic manner.

It is known that majority of customers use keywords in searching for the services they need. Knowing these keywords in a customer point of view will help to build proper and well-structured websites that will make the search engines' crawlers easier to reach those words when searched so that business and services can be easily found, with the definitive goal being to bring the company to appear in a much better search results, usually within the top five or better, depending on the company's needs.

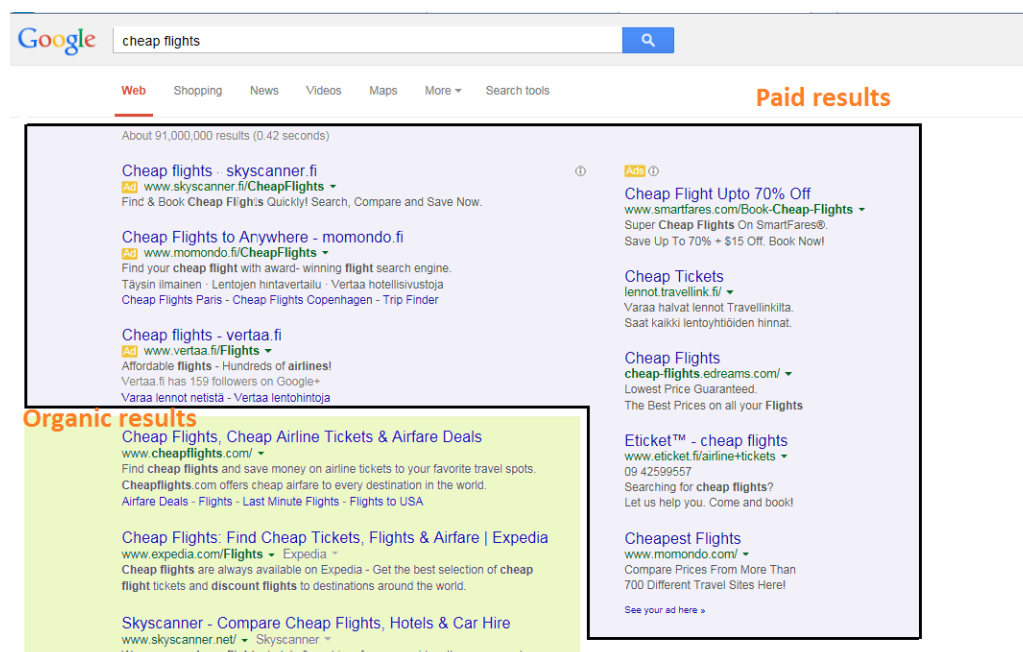


Figure 4 Paid and organic search results

2.2 SEO Demand

2.3 The effect of keywords

2.3.1 Web Visibility

Using keywords obtained from a specific target market group can affect website visibility. The SEO description was made by the combination of unique keywords that prospective customers (those interviewed) will use to search the services.

Customers will use specific combination of keywords to access the results of website even if they do not know the domain name, the keywords combination will help them to find the services they need. Thus high quality keywords that are very closely related to the services offered and also distinctive are needed in the construction of descriptions.

Keywords competition on the internet together with search volumes and its relevance are the main factors that concern search engines when increasing website visibility. The idea of having different and unique keywords will increase the search volume and enhance the visibility of the website.

2.3.2 Keywords Structuring

The keywords were structured in different parts of the website to enhance web crawlers access the content of the site easily and return the searched content to the browser more efficiently. Distributing different keywords in webpage titles, Meta descriptions and media descriptions can increase the overall functionality of the website by acquiring good score which will also increase the ranking. Thus more visible the website is going to be.

2.3.3 Web Crawler

Web crawlers scan website content which starts from <body> to</body> tags in order to retrieve results. Within content crawlers look for specific keywords, phrases and meta descriptions that have been inserted for the purpose of good SEO results.

As mentioned in the above explanation, specific keywords relevant to the service are the ones that web crawlers are looking for so as to bring back the needed results to the web surfer.

2.3.4 Page Ranking

According to Google, a web crawler engine scans the website content, searching for specific keywords in order to display the correct website to the user performing the query. Therefore the more people search for the same service using the keywords the more the webpage appears in the search results list, thus it gains more scores. Each click that results from queries is counted in the calculation of the page ranking; this explains that using quality keywords when constructing SEO descriptions is important.

Some factors that affect page ranking include how the keywords are structured in the website and how strong the domain name is. Both of these must have a strong relation to the services offered.

3 Research Methods

For the purpose of this thesis project, research data has been gathered from various sources such as printed literature, online articles, SEO guidelines published by Google, benchmarking of other sites and tutorials from SEO consultation companies available on the internet.

3.1 Literature review

3.1.1 Printed Sources

Printed literature has been used to refer to SEO best practices on an academic level. However, when it comes to technical implementation it is important to refer to the latest industry reports and research journals available online I.e. Google scholar.

3.1.2 Online Sources

Online sources have been mostly gathered from research papers produced by various researchers which are publicly available in Google scholar. There are also other companies that have produced valuable information on SEO which was taken as a reference upon implementation of this project.

3.1.3 Tutorials

Some of the SEO learning has been achieved through an online course in YouTube given by a SEO consultation company. The course is comprised of (#) video series where the lecturer talks about the do-s and don't-s in great detail about SEO.

3.1.4 Google Guidelines

Google often adapts its strategy of indexing and displaying information according to changes in the industry. It is known that Google has made more than 450 algorithm changes in a single year (seobook.com). This fact makes even leading search engineers find it troublesome to fully understand how Google works through its complex algorithms.

However it did publish also a SEO guideline which covers in a wide aspect the best practices of SEO. These guidelines are published to aid webmasters and SEO engineers to optimize their websites to be more Search engine friendly.

4 Qualitative research

4.1 Benchmarking

Benchmarking of other sites has been done in order to see how websites that have high ranking in Google have implemented their SEO. This way we could see and compare against our SEO practice and make changes accordingly. The evaluation of their source code has been inspected as well as other sites where their name has been mentioned.

4.2 Interview

Demographic Group	Age	Suggested keywords	Comments
Teachers	35-50	<ul style="list-style-type: none"> • Kela/poliisi/* queuing services • Jonotus Järjestelmä • Jonotus applikaatio • Jonotus numero • Vuorolippu 	<p>This group suggested including links to the client organizations such as www.kela.fi.</p> <p>Either as a form of link to our website or as a separate page in the client's website I.e. Kela.fi>Queuing services.</p>
Laurea UAS employees	25-35	<ul style="list-style-type: none"> • Queuing + ticket • Vuorolippu • Vuoronumero 	
Students	22-27	<ul style="list-style-type: none"> • Application + queue • Waiting queue • Kela + waiting + Espoo • Queuing app country /region 	
Coworkers	30-60	<ul style="list-style-type: none"> • Poliisin vuoronumero • Kelan vuoronumero • Verotoimiston vuoronumero • Pankkin vuoronumero • Kirjaston vuoronumero • Terveyskeskusten vuoronumero • Sairaalan vuoronumero • Laboratorion vuoronumero 	
Friends	22-74	<ul style="list-style-type: none"> • Queuing+ services + online • Online queuing 	

Figure 5 Survey results data

5 SEO implementation

5.1 Overall Implementation

The SEO implementation was performed by using the company's website in the html format. Parts of the website were edited by inserting the Meta descriptions which are relevant to the services offered by the client and also obtained from the survey.

During the analysis period we were able to derive from literature review on the best way to use keywords and how to be successful in SEO. According to google SEO best practices (Google, 2010) Google's search engine constantly changes the way it works in order to combat spamming websites and other irrelevant information from being displayed to the readers. In 2009 Google announced officially that meta tags and meta descriptions no longer affect web-site ranking, meaning it will ignore completely Meta tags containing only keywords separated by commas and even site descriptions or other sentences that seem unnatural. Consider the following sentence was created from our keywords.

“This online queuing application is available for Android and IOS. Simply queue online no waiting time, no longer Wait in long queues at kela, police station or tax office or...”

Supposing only keywords are used, Google will understand that the webpage is trying hard to overuse keywords and is able to realize that the sentence does not seem natural therefore it will ignore it completely. This goes to show that keywords are no longer that important as a single entity. They need to be combined in well written text in such a way that they fuse with the phrase naturally.

From that sense we understood that Google is now trying to offer corresponding content to the reader rather than senseless keywords.

We also found out that one of the most important things in SEO is the title of the webpage. It should contain a natural phrase that explains the whole business in one simple sentence. This is where we should focus on constructing the best webpage title by choosing the distinctive keywords to use.

Also another good practice was including links from credible websites. Google may perceive website's legitimacy and importance while scanning links to external websites. If the links however, redirect to random pay per click or spamming websites, then Google will ignore the site or blacklist it.

However if there are links from police department or social services then google will link the site with them and it will even suggest it to customers if they would simply be searching for police services.

Consider whenever writing a site description or anything related to the business, to include also the region i.e. Helsinki, Espoo and so on. There is a good chance people will search for the product in their region. i.e. in our case; vuoronumero + polis + Espoo.

Apart from that highlight key sentences with h1, h2 and so on, the ones that you want crawlers to read and mark as important information. Google will think these are important and will remember them.

One of the lessons learned is that none can guarantee first page ranking, not even Google themselves. And every time any SEO is implemented, time should be allocated for changes to take effect. This may take from 2-3 weeks to 1-2 months.

SEO demands keep changing accordingly as well; search engine implementation done two years ago will not be the same as the one which will be done in the future

5.2 Ideal Use of Online Community.

Another implementation suggested to the client is to make an ideal use of online community such online journals, blogs, and tech-news.

During research using the keywords, it was noticed that most of the high ranking websites were actual blogs, online journals and tech-news such as “tiivi.fi”, the client could use this opportunity to announce their services on the new technology of online queuing services offered by few companies in EU.

In the above mentioned blogs, the company has also the opportunity to include a link to its website. This way it may generate more traffic and contribute in the ranking process of the site. In addition the client can also write articles about the services in tech-websites in Finland and other EU countries. An example of a good heading for a blog or an article could look similar to the one below;

”Finnish company successfully launches cloud based queuing services that will reduce queuing times.”

5.3 HTML Implementation

Below are the sections of the website that were changed and described; Note that the meta description was implemented using both languages English and Finnish, as the main target is Finnish market since Finns are the major prospective end users of the online queuing services. It was decided to use both languages so as to increase the possibility of web crawlers utilizing keywords based on the domestic language as well as English in order to bring out the best results possible to people performing queries.

On the home page, features page, price page and contact us page different meta descriptions were used to illustrate website sections; each section has its unique keywords combination to keep it fresh, clean and most important to keep it as natural as possible. This way the website content will be efficiently utilised by the web crawler to access the information and retrieve the results.

Also each of the tags were edited by using unique and distinctive combination of keywords, hence they all differ from each other to enhance the SEO.

5.3.1 Homepage

Page title:

The title tag of the homepage was edited so as to distinguish the websites that might look similar and also if users search using the keywords that are the same as in the website, they see the site link is highlighted in the search engine.

```
<title l10nID='Q_CMN_TITLE_TXT'>Vuoronumero.fi | Take an online queuing number remotely using our mobile app!</title>
```

Figure 6 Title of the home page.

Header/Slogan:

The website's header has unique keywords to increase optimization of the website efficiently.

```
<a href='index.html'></a>
```

Figure 7 Slogan

Domain name: www.vuoronumero.fi

Based on data that was derived from interviews, it was decided to suggest changing the domain name from www.qtip.me to www.vuoronumero.fi

At the initial stage of the interview, interviewees were asked to review the current domain name and give their responses on how the name is relevant to the services offered. They explained that the domain name used does not relate to the services offered. Also whenever the current domain name is typed in the search engine, results are different as well as the website does not appear in the results, even though our client owns the domain name.

The suggestion to change the domain name to “vuoronumero.fi” is due to the fact that the name itself reflects what the website is about and importantly the services offered by them which are online queuing services.

Images:

Description tags including keywords were also added to images in the home page in order to increase the possibility of retrieving the images from the Google images search section.

```
<a href='index.html'></a>
```

Figure 8 Homepage Image tag

Meta Descriptions & Keywords:

Using meta descriptions can be a good way to provide to search engines an overview of the website. This is what the website is about, services offered and so on.

```
<!-- Meta description added for SEO purposes-->
<meta name="description" content="Our service solves the problem of queuing in long lines by
allowing you to take a queuing number remotely using a smartphone app available for Android and IOS.
Furthermore it monitors queuing turns in real time and notifies you of the next upcoming number">

<!-- Meta keywords added for SEO purposes-->
<meta name="keywords" content="vuoronumero, remote queuing, jonotusnumero, pankkivuoronumero,
poliisivuoronumero, queuing number">
```

Figure 9 Meta description & Keywords

5.3.2 Features page.

Page title:

Also on the features part of the website, different title tag description was written for the same purpose as the title on the homepage, to make each title fresh and unique.

```
<title 110nID='Q_FT_TITLE_TXT'>Vuoronumero.fi | How cloud queuing service works</title>
```

Figure 10 Feature page title tag

Meta Descriptions & Keywords.

The meta description serves the same purpose as the one on the homepage moreover it is accurately used to describe the website and help Google to retrieve short information and data. Therefore short, descriptive and different meta tag was added so that the website won't be penalised by major search engines and pointed as a spamming website.

```

<!-- Meta description added for SEO purposes-->
<meta name="description" content="You can take a queuing number remotely
using our smartphone app available for Android and IOS and
monitor your position in real time while waiting for your turn remotely.">
<!-- Meta keywords added for SEO purposes-->
<meta name="keywords" content="vuoronumero, remote queuing, ionotusnumero,
pankkivuoronumero, poliisivuoronumero, queuing number">

```

Figure 11 Meta description & Keywords

Images on feature page:

Features page is the one that describes the actual services, if the case of product then how the product works. These images serve the purpose of increasing web visibility by using Google's image search if the users search using the keywords.

There are several pictures that were edited using different keyword in description sections, to refer to them please see the appendixes part of the thesis.

```



```

Figure 12 Example of the edited image on the features page.

Video tag:

The number of queries searching for videos on search engines is increasing. People need more clarity on the products services as major companies use YouTube videos to illustrate how their products work and so on. At this point it is highly beneficial adding videos in the website in order to describe a product or service. This method is a good way to increase the ranking of the website as well as generate high amount of web traffic. Moreover if the videos are hosted by YouTube and linked to the concerned website it is considered to be a good source for visitors of the website.

As Google includes videos in indexing, using videos and labelling them with keyword-rich descriptions will provide a higher chance of acquiring good SEO benefits.

Apart from that, keywords have to be relevant, descriptive and linked to YouTube as it was done in the video part of the features page.

```
<iframe id='teaser' src="//www.youtube.com/embed/lkgGur6L6LM?html5=1&rel=0" frameborder="0"></iframe>
<p id='alternate' class='ptsans'><span l10nID='Q_FT_BB_TXT_14'>Check out our</span> <a
href='https://www.youtube.com/embed/lkgGur6L6LM?html5=1&rel=0'
l10nID='Q_FT_BB_TXT_14_1'>youtube video to see how our mobile queuing application works.</a></p>
```

Figure 13 YouTube video

Header 2 & Paragraphs (<h2> & <p>):

Heading tags and paragraphs were added for the purpose of differentiating the content of the heading part with the rest of the website content and in order to make SEO more efficient. This provides consistency of keywords and increases relevancy of the website to enhance the web crawler to access the data needed in retrieving the search results. Several headers and paragraphs were added, below is an example of them. More can be found on the appendices.

```
<h2 class='nixie' l10nID='Q_FT_BC_TXT_2'>All the offices on one screen</h2>
<p class='ptsans' l10nID='Q_FT_BC_TXT_3'>Instant overview of all offices near you that use
<span class='qb'>qtip.</span><span class='qq'>me</span>
and of their current queue situation.</p>
```

Figure 14 H2 & Paragraph description

5.3.3 Pricing page

Page title:

In the pricing page of the website, the title added is relevant to the services offered on the website and importantly it is more relevant to the pricing part of the website. It describes the pricing page using keywords which potential customers are likely to use when searching for prices of online queuing services on search engines.

```
<title l10nID='Q_PR_TITLE_TXT'>Vuoronumero.fi |
Make the best out of your time and register for one of our queuing service plans</title>
```

Figure 15 Pricing page title tag

Meta Descriptions & Keywords:

As discussed above concerning the advantages of including meta tag descriptions in each part of the website will inform the user to select pricing that fits their organization online queuing services.

```

<!-- Meta description added for SEO purposes-->
<meta name="description" content="Select your suitable pricing plan for our queuing service">
<!-- Meta keywords added for SEO purposes-->
<meta name="keywords" content="vuoronumero, remote queuing, jonotusnumero,
pankkivuoronumero, poliisivuoronumero, queuing number">

```

Figure 16 Meta description & Keywords

5.3.4 Contact us page

Page title:

Below is the title added in the contact us page which includes the keywords and also informs the user to contact the cloud queuing services provider to find out more about the product.

```

<title l10nID='Q_CU_TITLE_TXT'>Vuoronumero.fi |
Get in touch with our cloud queuing service provider</title>

```

Figure 17 Contact us page title tag

Meta Descriptions & Keywords:

This part serves the same purpose as explained in the above meta description & keywords sections.

```

<!-- Meta description added for SEO purposes-->
<meta name="description" content="Here is our contact information to get in touch
with our queuing service provider.">
<!-- Meta keywords added for SEO purposes-->
<meta name="keywords" content="vuoronumero, remote queuing, jonotusnumero,
pankkivuoronumero, poliisivuoronumero, queuing number">

```

Figure 18 Meta description & Keywords

Apart from constructing keywords, meta descriptions, titles and so on in English language, it was also written in Finnish language to increase the possibility of higher page ranking using organic search engine marketing. Below is an example of it, for more information please refer to appendixes page.

```

<title l10nID='Q_CMN_TITLE_TXT'>Vuoronumero.fi | Ota vuoronumero netissä ja välttää jonotusta!</title>

```

Figure 19 Finnish title tag

6 Conclusion

6.1 SEO Results

The level of success of the project was measured by performing search queries in a search engine using keywords gathered from research. The results were then compared between the desired ranking and the current standing in the search engine ranks.

Upon mining for information, we noticed that within the first week, our client's website instantly achieved third place ranking in Google search engine. However, according to the tests performed on April 29, 2015 we noticed that within three weeks it had gained a first place ranking (Figure 20).

The achieved ranking illustrated in the picture, shows the difference SEO can bring to a new website even though we were able to notice a few problems as well.

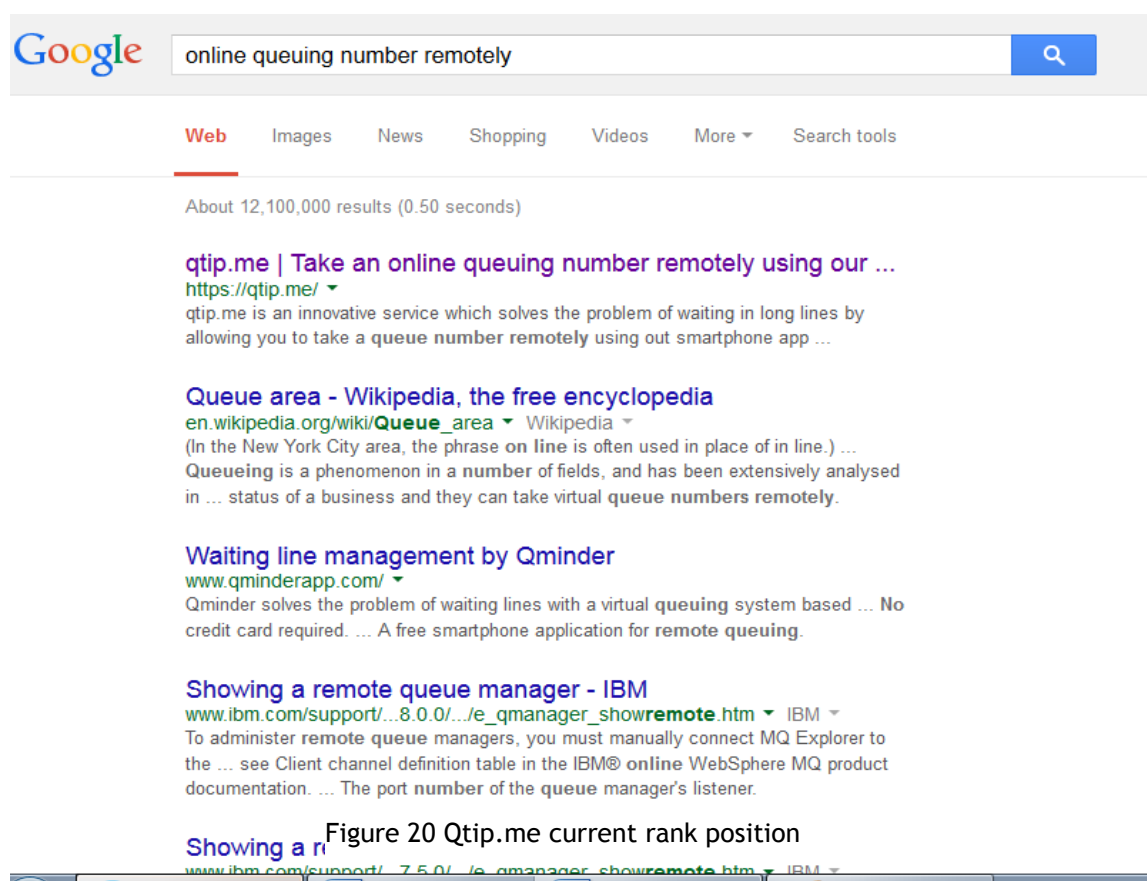


Figure 20 Qtip.me current rank position

The first issue we noticed (Figure 20), was that there are grammar mistakes in the site description. This makes us suspect that grammar mistakes might exist in other parts of the site

as well. This may bring difficulties to the search engine determining what the content is about therefore, measures must be taken immediately.

Secondly we noticed that not all keyword combinations bring the same result. I.e. upon removing the keyword “number” from the ones used in the previous search query, our client’s website drops in fourth place in Google ranking (Figure 21).

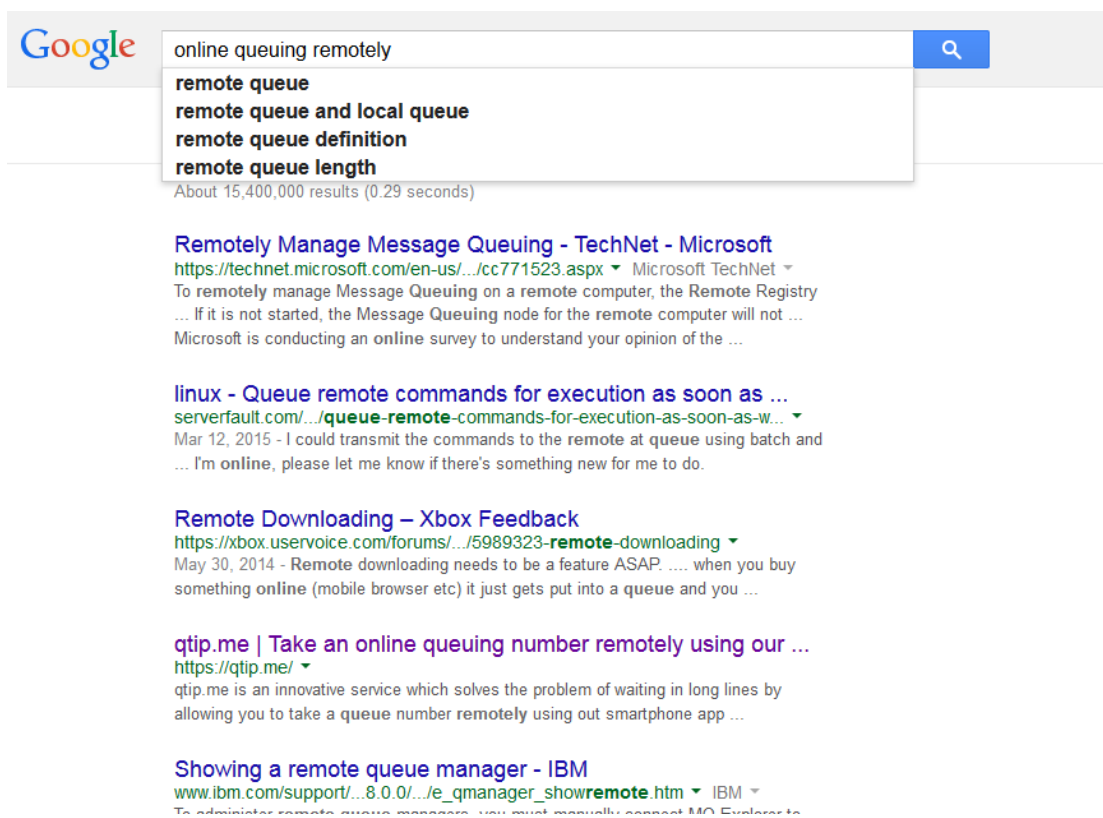


Figure 21 Page ranking drops to fourth upon removal of one keyword.

This drop in ranking could come as a result of several factors, two of them being: grammar mistakes in the content as well as partial implementation of the SEO.

The last issue observed at this stage was that the Finnish search queries performed are not returning any good results. This could come as a result of not implementing SEO in Finnish.

Taking into consideration the time from when the implementation took place and the amount of work implemented within the live website, we may conclude that the project was relatively successful. Moreover considering that before the start of this project we were unable to find our client’s website on any search engine.

Comparing the results then and now with the current ranking position achieved, solely from on-site HTML edits, we feel safe to conclude that if the client proceeds with the off-site SEO implementation, our client will be able to outperform its competition and maintain first place in ranks for a longer time.

6.2 Own Observations

Before starting work on the project we had a small understanding of what SEO was therefore we thought that SEO involves more coding and web development. However we came to understand that SEO is a form of marketing that can be implemented also from persons with limited to no web development skills. SEO is an art of creating good content that is relevant, informative and easy to understand for both customers and search engines alike.

Good SEO does not involve a single implementation practice. It is an ongoing process that involves constant updating of web content, link establishment with blogs as well as other news articles, social media management and so on.

Another observation is that off-site SEO is probably as important as on-site SEO. With off-site it is referred to web not related to the client, which mentions the client's existence. This includes social media, news stations, and bloggers and so on. We were able to monitor this practice and compare it with a website that was recently built by one of us. In the said site there was no SEO implemented, however, due to it being mentioned in various news and R&D firms, it gained high ranking on Google on its own. Whenever keywords are entered that relate to the project, it comes in top three in search results.

Lastly we learned that there is no SEO professional or firm that can guarantee high ranking of client's website. This is due to the high competition between websites as well as the limited knowledge available about search engine requirements. Take Google as an example, its algorithms usually undergo as many as 600 changes in a single year with few major updates as well. Whenever a major update is released such as Pigeon for instance, the information released generally provides hints of the next good practices, however detailed processes of implementation are never revealed to the public.

References

Printed references:

Bailey, S. 2011. *Academic writing: a handbook for international students*. New York: Routledge.

Elmansy, R. 2013. *Teach Yourself Visually Search Engine Optimization (SEO): the first and easy way to learn*. Wiley: Visual.

Enge, E., Spencer, S., Fishkin, R. & Stricchiola, J. 2009. *The Art of SEO: Mastering search engine optimization*. Sebastopol: O'Reilly.

Google Inc. 2010. *Search Engine Optimization: Starter guide*.

Lawson, B. & Sharp, R. 2011. *Introducing HTML 5*. California: New Riders.

Ledford, L. 2008. *SEO: search engine optimization bible*. New Jersey: Wiley.

Lynch, Patrick. & Horton Sarah. 2009. *Web Style Guide: Basic design principle for creating web sites*. Indiana: Courier.

Newlands, M. 2011. *Online Marketing: A user's manual*. Chichester: John Wiley & Sons.

Philips, J. 2002. *IT Project Management: On track from start to finish*. New York: McGraw/Osborne.

Rea, L. & Parker, R. 2005. *Designing and conducting survey research: a comprehensive guide*. California: Jossey-Bass.

Shakuntal, A. Codemenders Oy. Interview with the author. 10 October 2014. Espoo. SEO for qtip.me.

Online References:

Algorithms. 2012. Accessed 28 October 2014.

<http://www.google.com/insidesearch/howsearchworks/algorithms.html>

Barett, J. What is Web Traffic. Accessed 3 February 2015

<http://smallbusiness.chron.com/traffic-46449.html>

Best practices to help Google find, crawl, and index your site. Accessed 10 November 2014.

<https://support.google.com/webmasters/answer/35769?hl=en>

Crawling & Indexing: The journey of a query starts before you ever type a search, with crawling and indexing the web of trillions of documents. Accessed 19 February 2015.

<http://www.google.com/insidesearch/howsearchworks/crawling-indexing.html>

Domain name. 2012. Accessed 9 January 2015.

http://techterms.com/definition/domain_name

Edwards, C. 2014. Is the meta keyword tag still being used by Google, Bing and Yahoo. Accessed 4 March 2015.

<https://chrisedwards.me/seo/keyword-meta-tag-google/>

Evolution of Search. 2011. Directed by Google. Accessed 4 November 2014.

<https://www.youtube.com/watch?v=mTBSHTwCnD4>

Fishkin, R. & Staff, M. Beginners guide to SEO. Accessed 13 January 2015.

<http://moz.com/beginners-guide-to-seo>

HTML Introduction: What is HTML? Accessed 15 October 2014

http://www.w3schools.com/html/html_intro.asp

HTML <meta> Tag. Accessed 21 October 2014

http://www.w3schools.com/tags/tag_meta.asp

How search works. 2010. Directed by Matt Cutts. Accessed 16 March 2015

<https://www.youtube.com/watch?v=BNHR6IQJGZs>

Maynes R. The Moz Blog. Eye Tracking in 2014: How Users View and Interact with Today's Google SERPs. 2014. Accessed 30 March 2015.

<http://moz.com/blog/eye-tracking-in-2014-how-users-view-and-interact-with-todays-google-serps>

Real-time Web Analytics With no Sampling: Desktop search engine market share. 2015. Accessed 17 March 2015.

<http://www.netmarketshare.com/>

Rouse, M. 2001. Search Engine. Accessed 7 October 2014

<http://searchsoa.techtarget.com/definition/search-engine>

Search Engine Optimization: Optimizing your webpage for searching. Accessed 12 February 2015.

http://www.umb.edu/it/getting_services/web_services/search_engine_optimization_seo

SEO: A Comprehensive Guide for Beginners. Accessed 17 February 2015.

<https://blog.kissmetrics.com/seo-guide/>

Seiter, C. 2014. The Complete Beginner's Guide to SEO. Accessed 20 February 2015.

http://www.huffingtonpost.com/courtney-seiter/the-complete-beginners-gu_b_5454161.html

Stoobs, J. Click Distribution & Percentages by Search Engine Results Page (SERP) Rank. December 9, 2010. Accessed 30 March 2015.

<http://jacobstoops.com/blog/click-distribution-percentages-by-serp-rank/>

What Is SEO / Search Engine Optimization. 20015. Accessed 4 February 2015.

<http://searchengineland.com/guide/what-is-seo>

Walters, M. 2015. SEO for page title. Accessed 17 January 2015.

<http://www.seomark.co.uk/seo-page-titles/>

Walters, M. 2015. SEO Glossary. Accessed 14 January 2015.

<http://www.seomark.co.uk/seo-glossary/>

What is SEO. 2013. Directed by David Murray. Accessed 5 November 2014.

<https://www.youtube.com/watch?v=t7RzFyzU9F4>

Wall, A. Is Page ranking important: Just enough knowledge to be dangerous. Accessed 14 January 2015.

<http://www.seobook.com/learn-seo/is-pagerank-important.php>

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--	----

Appendix 1. More of the description written on the website.

```

```

```
<img class='span4' src='img/b2c-take-ticket.png'
alt='Take a remote ticket using your smartphone'>
```

```

```

```

```

```

```

```

```

```

```

```
<h2 class='nixie' 110nID='Q_FT_BC_TXT_4'>Take a remote ticket</h2>
```

```
<p class='ptsans' 110nID='Q_FT_BC_TXT_5'>
```

```
Select a <i>queue</i> at the <i>office</i> of your choice and see its current status.
Find out the number of people ahead of you in the queue. Place yourself in the queue
remotely using your smartphone.
```

```
<br>
```

```
<br>
```

```
Receive updates of the queue's progress on your smartphone.
```

```
</p>
```

```

<h2 class='nixie' l10nID='Q_FT_BC_TXT_6'>Relax, make most of your waiting time!</h2>
<p class='ptsans' l10nID='Q_FT_BC_TXT_7'>
With regular notifications about queue's progress being sent to your smartphone,
enjoy being mobile and make the most of your waiting time however you like!
<br>
<br>
Use our notifications to reach the office on time and get served without waiting!
<br><br>

```

```

<h2 class='nixie' l10nID='Q_FT_BB_TXT_2'>Your queues at your fingertips</h2>
<p class='ptsans' l10nID='Q_FT_BB_TXT_3'>Instant overview of your queueing situation.
Easily see and manage all your customer queues online.</p>

```

```

<h4 class='modal-title' l10nID='Q_CMN_TITLE_TXT'>Vuoronumero.fi |
Cloud based queuing application</h4>

```

```

<a href='index.html'></a>

```

```



```

```



```

```



```

```

<img class='span4' src='img/b2c-take-ticket.png'
alt='Ota jonotusnumero\ota vuoronumero'>

```

```



```

```

```

```

```

```

```

```
<a href='index.html'></a>
```

```
<!-- Meta description added for SEO purposes-->
```

```
<meta name="description" content="Huippu pilvijonotussovellus joka tarjoaa vuoronumerot kätevästi netissä.
```

```
Hae pankkivuoronumero, poliisivuoronumero sekä muut palvelunumerot ottamalla jonotusnumerot etukäteen netissä niin säästä aika ja turvaa jonotusta.">
```

```
<!-- Meta keywords added for SEO purposes-->
```

```
<meta name="keywords" content="vuoronumero, remote queuing, jonotusnumero, pankkivuoronumero, poliisivuoronumero, queuing number">
```

```
<iframe id='teaser' src="//www.youtube.com/embed/lkgGur6L6LM?html5=1&rel=0" frameborder="0"></iframe>
```

```
<p id='alternate' class='ptsans'><span l10nID='Q_FT_BB_TXT_14'>Katso</span> <a
```

```
href='https://www.youtube.com/embed/lkgGur6L6LM?html5=1&rel=0' l10nID='Q_FT_BB_TXT_14_1'>Meidän mobiili jonotussovellus toiminnassa.</a></p>
```

```
<title l10nID='Q_PR_TITLE_TXT'>Vuoronumero.fi |
```

```
Käytä aikasi viisaasti ja rekisteröidy yhteen meidän vuoronumeropalveluistamme</title>
```

```
<a href='index.html'></a>
```

```
<!-- Meta description added for SEO purposes-->
```

```
<meta name="description" content="Ota yhteyttä pilvijonotuspalvelutarjoajaasi">
```

```
<!-- Meta keywords added for SEO purposes-->
```

```
<meta name="keywords" content="vuoronumero, remote queuing, jonotusnumero, pankkivuoronumero, poliisivuoronumero, queuing number">
```