UX method development from Usability testing with Eye tracking for E-commerce

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Interaction Design
Bachelor
22.5 ECTS
Spring 2018
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Abstract

This thesis investigates the knowledge around the field of eye tracking within e-commerce, and specifically CDON. Eyetracking is a powerful tool within usability testing and it makes us as designers see what the user is actually looking at on the screen. This paper will present the design process and through usability testing result in how to gather and later on analyse data to benefit e-commerce. The study contains research around the methods of eyetracking and usability testing for e-commerce within the field of interaction design that results in a developed user experience method, specialized for e-commerce. The final outcome is a method called the 2-competitor method that interaction designers can use to compete the website that they work on to other websites and find valuable information such as design issues or improvements. The method informs competing sites to be used as a tool to improve design.

Keywords: e-commerce, usability test, eye tracking, UX design
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Acronyms

UX – User Experience
B2B – Business to Business
B2C – Business to Consumer
PT – Participant T
PK – Participant K
PS – Participant S
PD – Participant D

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1. Introduction

1.1 Purpose

A common problem in the UX field when applying Eyetracking when user testing is to do it because you are supposed to and not knowing what to do with the data. Bojko (2013) describes her story about it as “track now, think later”.

The intended purpose of this thesis project is to find out how eyetracking can be used within the field of e-commerce and how the data will be gathered and later on analysed. The wanted outcome is to find relevant data from user testing combined with eyetracking and develop an analysis UX method. Eyetracking is a method itself made to facilitate user testing in the field of User Experience and this project will find out how it will be applied for e-commerce, specifically CDON.com and also result in an own analysis method. The method developed can benefit other interaction designers in the field of e-commerce to compare their own site with competitor websites and find design issues and other improvements.

1.2 Research questions

*How can eye tracking be applied and contribute in user testing for e-commerce?*

*How can eyetracking data be analysed and how do the results inform designers who design for e-commerce?*
1.3 Target group

The chosen target groups for this study is parted in three groups, based on level of skill. The first one is “The beginner”, the user that almost never or have never bought something or browsed through an e-commerce site. The middle one is “The regular”, that is the user that casually buys and or looks though an e-commerce site. The last one is “The Professional” that is shopping or browsing almost every day and is common with how to navigate on an e-commerce site without any problem. Age is also a factor; the target group will have a participant who is over fifty years old. There can be a difference in for example speed in how the participant looks and navigates and that is something that is considered.

1.4 Delimitations

In this paper, I explore the field of usability testing with eyetracking and test it out for myself. The participants in my study is based on my intended target group and chosen carefully to add up to the different criteria’s. The participants consist of 2 people under the age of 25, one over 25 and one over 50. I have limited myself to explore the area of research and to conduct usability tests. The aim is, based upon the gathered and analysed data to later on develop and combine methods in the field of usability and eyetracking to specify a method to fit into the world of eyetracking and e-commerce. The methods will be presented in the chapter 2 below. I did limit the usability tests to product level, meaning giving the participant tasks to complete about different products, product categories or navigation on site and not to customer service errands or customer information aspects. This project is made in Sweden and with participants who talk Swedish, therefor some of the design process material be presented in Swedish and explained in English when appropriate. All tests are made at the CDON office in Malmö.
1.5 Contribution

The outcome of this thesis project is an UX analysis method that any interaction designer can use in the field of e-commerce or working with online sites. The method contributes with understanding around the key functions of an online site and helps to find design issues or other flaws. With help from the template that the method comes with the interaction designer can map out the key functions, write useful user scenarios and compare their site to two other sites in a usability test to see where the test participant chooses to buy the product.

2. Theory

In this chapter, relevant theory to develop understanding around the fundamentals behind the overall topic of this thesis will be presented. This includes the definition of e-commerce, the psychological aspect of shopping patterns, the partnership with the company (CDON) and the essential of eyetracking.

2.1 Electronic-commerce

According to Laudon and Traver (2010) the definition of e-commerce is “The use of the Internet and the Web to transact business”. Which more formally means “digitally enabled commercial transactions between and among organizations and individuals”.

There are three ways to communicate e-commerce through networks, Internet, Intranet and Extranet. (Watson, 2008). The internet is for global network which means that "any computer connected to the internet can communicate with any server in the system". (a.a)
Today there are different kinds of e-commerce with different purposes depending on goal. There are B2C (Business to Consumer) which is the regular one where an online shop or business sell their products or services to an individual consumer. B2B (Business to Business), where a business sells to another business. C2C (Consumer to Consumer), provides regular consumers to sell to each other for example on different auctions sites. There is also M-commerce which stands for Mobile commerce and is when we use our mobile devices to make transactions through the web (a.a).

To understand more of e-commerce and why it is interesting they list eight unique e-commerce technology features that also are explained in the book as good to know for merchants, not only in case of knowing the consumer but also to know about competition with other merchants and so on. The eight features are:

- **Ubiquity**, which means that the internet/web is available everywhere at any time.

- **Global research** means that technology stretches globally, across nations and all around the world.

- **Universal standards** are the main technology standards.

- **Richness**, the possibility of audio, video and text messaging.

- **Interactivity**, the interaction between a user and the technology.

- **Information density** which means that the information costs decreases, and the quality gets better with technology.

- **Personalization/Customization**, personalized messages can be delivered to an individual person or a group of people.

- **Social technology**, it is all about social networks and the user content. (a.a)
As mentioned above these eight features can be good for merchants knowing the competition, and how they will be used in this project. The four points that will be used in the design process when comparing between different companies’ sites are: richness, interactivity, information density and personalization/customization. The reason behind highlighting these four is because they are most relevant to the delimitations mentioned in chapter one.

To set a stable ground for the project, relevant facts about electronic-commerce was presented in this section. The company that the study is in partner with is an e-commerce business and therefore it is important to get knowledge around what that is and how it works.

2.1.1 A partnership with leading Nordic e-commerce business, CDON.com

The company I worked with during this thesis project is CDON. CDON is an B2C e-commerce business site and a market place with a growing range within sports, beauty, fashion, electronics and a lot more. The office is placed in Malmö, Sweden with around 130 employees that works with everything from customer service to logistics, IT and marketing. CDON.com is part of a Nordic e-commerce group called Qliro Group that started in 1999 and is today leading e-commerce group within consumer goods and lifestyle products. Qliro Group also owns Nelly.com and Nellyman.com. (CDON, 2018)

2.1.2 The competitors

The sites that will be part of the usability tests made in the design process and compared to CDON is Elgiganten1 and Media Markt2. Both companies are leading in home electronics and is comparable with CDON. The sites where chosen based on the delimitations for this project

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1 www.elgiganten.se
2 www.mediamarkt.se
and fitted in perfectly. This means that the tasks in the usability tests where planned from the beginning to only be on product level and therefor the sites that was to be compared with CDON needed to have similar products.

2.1.3 Marketing = Customers

For an online business to not only keep existing consumers, win over new ones or keep a strong brand to push their sales they need to use a method called *online marketing communications*. (Laudon & Traver, 2010)

Marketing communications is about as mentioned above both branding and sales, the two fundamentals to stay on the online market. The difference between the two is that when it is about promotional sales, the consumer is suggested to “buy now” and spend money. When it is about promotional branding instead the consumer is informed about the different benefits of actually consuming the product/service. There is a lot of different ways for an online business to market them self, it could be through online advertising, e-mail marketing, public relations or social marketing. (a.a)

**Online advertising**

The definition of online advertising is “a paid message on a Web site, online service, or other interactive medium” (eMarketer, Inc.; 2009 in Laudon & Traver, 2010). Using online advertising can be very beneficial for companies and businesses because of the Internet. The accessibility makes the main audience always connected and moves around a lot there. Another great plus of online advertising is the ability of tracking and targeting the ads in almost real time. Some examples of online advertising can be Display ads (Banners and pop-ups), Rich media ads (using Flash, DHTML or Java to stream audio or video), Video ads, Search Engine ads, sponsorships or referrals (affiliate relationship marketing with other firms). (Laudon & Traver, 2010).
CDON, the company worked with in this project uses a lot of online advertising on site. Not only to advertise their own site, such as on different social media channels but also advertising other sites as affiliate relationships, for instance google ads. In the usability tests presented in chapter four this aspect of advertisement is put to the test. Will the consumer think that this is nice and beneficial or is it just annoying with a lot of advertising? The final outcome of this study, the 2-competitor method, that is an analysis method within UX can be used as a tool to evaluate these online advertising aspects and compare with different sites when it works and when it does not.

2.2 Online Shopping patterns

To understand the psychological aspects or of why the participants in this study do what they do during the usability tests I will present facts around online shopping patterns in this section. In section four I present the design process and more about the usability tests.

There are a few different characteristics of people shopping on the internet. Before getting into the certain patterns of online shopping, the usage of internet needs to be brought up. Peoples attitude to internet is relevant to consider in this section, and also the accessibility to internet. (Sim & Koi, 2002)

What customers do when online shopping is hard to know, because everyone does everything in their own way. Park & Kim (2003) tells us that;

“consumer’s commitment to an online store is highly related to information satisfaction and relational benefit. At the same time, information satisfaction and relational benefit are significantly affected by product and service information quality, user interface quality, and security perception.”
This means that information on an online site is an important aspect when talking about consumer loyalty and even site behaviour. Important site information could be anything from product information to information about service.

There are also studies showing why people are not shopping on the internet, according to Sim & Koi (2002) the main reason is that people prefer to shop in a real store and that they enjoy real shopping experience. Another reason is that the consumer is not able to try out or examine the product before buying them and the last reason is that the consumer feels uncertain about the security when paying on the internet. There are both navigational patterns and behavioural patterns on an e-commerce site, navigational patterns are as searching, browsing, clicking on a product, basket placement and paying while behavioural patterns are connected to a behaviour, these patterns can be length of reading something, number of visits on a specific product and click ratio for a product. (Kim et al, 2005).

2.3 The essentials of Eye tracking

The main aspect of this project revolves around usability tests with Eyetracking and therefore I will present all the essentials around the subject to get an understanding of what it is and how everything works and why. The design process with the usability tests is explained further down in section four.

A simplified definition of Eyetracking mentioned by Nielsen and Pernice (2010) in their book Eyetracking Web Usability is “following the trail of where a person is looking”, and it is not more complex than that. The technology and specifically the effort behind making something out of your research is on the other hand the part that can be hard (Bojko, 2013). In this chapter (part whatever) the fundamentals of the human eye will be presented to later understand how eyetracking actually works.
2.3.1 The human eye

Human vision can be divided into two different parts, a high-resolution part within in a small central area, that is called *foveal vision*. The other part is called peripheral vision and becomes the rest of the visual field with much lower resolution. To specify, foveal vision covers about 2 degrees of the visual field which means that anything outside of the 2 degrees falls into the peripheral vision and gets blurred (Nielsen and Pernice, 2010). Nielsen and Pernice describes how a person’s eye pan across different areas or items of interest to merge small parts of good visibility into larger more sharp images. The important thing to know about this is that the process of the eye panning over different objects, do not happen as one smooth movement that for example it would when you are filming with a video camera, the eye actually moves in spurts and stops for a rest between every movement. In addition, this small process happens so fast that you are not even aware of it (2010).

So, every time the eye stops for that little rest, that is called a fixation and in between the fixations when the eye is moving around is called a saccade. During saccades the vision turns off to prevent blurring and turns on again on a fixation when the eye is still and actually focusing on something (Bojko, 2013).

In the first chapter of Eyetracking Web Usability, Nielsen and Pernice describes the mind-eye hypothesis. The mind-eye hypothesis explains that people are not always thinking about what they are looking at and that is a valid thing to know when analysing eyetracking data. They mean that of course users tend to look at elements on a web page and think about it but also states that looking not always means understanding. A user can fixate on an item that they need but not click on it in the end, which means that they did not registerate what the designer
wanted the item to mean in the first place. It could simply also mean that they did not want to click on it even if they understood it.

2.3.2 Heatmaps and Gaze plots

To visualize eyetracking data you can make something called a gaze plot or a heat map. A Gaze plot is a visualization where the fixations is represented as dots and the saccades as lines between the dots. The size of the dot also represents the duration of that specific fixation which means that the bigger the dot is the longer the user looked at that specific spot. The dots in each gaze plot is numbered, staring from one (1) which represents the very first fixation and then it goes on (Nielsen and Pernice, 2010).

A heat map on the other hand shows the combined fixations from a bunch of users in the same visualization. “The heat” is represented with different colours, red is where the users looked the most. Yellow, where they looked fewer times, blue where they looked the least number of times and grey, where they did not look at all. They are called heat maps because “the choice of colours metaphorically indicates hot zones and cold zones on a page” according to Nielsen and Pernice (2010).

Heatmaps and Gaze plots are made in this project to visualize and strengthen a theory on a possible design issue found while doing the usability tests. As mentioned further down, because of the openness of the tasks delegated to the participants, the eyetracking data where mostly for observational purposes but heat maps and gaze plots will be presented when accurate.
2.3.3 The heart of it all, The Tobii Pro Eyetracker

The eye tracker used in this project is a Tobii Pro X2-30 and it uses a technique called pupil centre corneal reflection (PCCR) to detect and track the eye. It basically works by using a...
light source to illuminate the eye, this causes highly visible reflections in the eye. Using a camera, you want to capture an image of the eye with these reflections. The image captured is then used to detect the reflection of the light source on the cornea and in the pupil. Tobii AB (2018) further on explains that “We can then calculate a vector formed by the angle between the cornea and pupil reflections, the direction of this vector, combined with other geometrical features of the reflections, is then used to calculate the gaze direction.”.

The image below explains exactly how the screen based Tobii eye tracker works. The five eye tracking essentials are: the eye tracker, the illuminators, the cameras, the image processing algorithms and the eye’s position and gaze point.

![Visualisation showing how the Eyetracker works](image)

Figure 3: Visualisation showing how the Eyetracker works. Illustrated by Tobii Pro (2018)

2.3.4 The software

The software used, combined with the hardware (Tobii Pro Eye tracker) to conduct and analyse the eyetracking data in this project is Tobii Studios. Tobii studios is a software
program used for user experience research with eye tracking. It provides the help needed when doing user testing everything from websites to mobile apps, software and games. You create your own user test and inside of Tobii Studios you can use different stimuli to make the best out of you research, for example screen recordings, scene camera for mobile Device stand, live-viewing tool for observation etc. You also get all the visualizations and behaviour metrics when the test is done in form of gaze plots and heat maps (explained in the upper section) (Tobii AB, 2018).

2.4 Summary
The intended goal with this section where to present relevant theory around the field of eyetracking and e-commerce and to set a stable ground and prepare the reader to the rest of the project. Adding online shopping patterns and online advertisement was to get a better understanding of the design process. In the design process usability tests with eyetracking is conducted, where three sites including CDON is compared to each other with help from the theory of shopping patterns and four out of eight presented features of online advertisement. In the usability tests the eye tracking hardware is used to collect data and the software to analyse the data and based on the findings from the usability tests an UX-method will be developed called the 2-competitor method.

3. Methodology
This section presents the methods used in the design process in chapter four. The selection of methods chosen for the design process is usability testing and then it follows with methods of how to interpret and analyse the usability tests. Observation and Think aloud was used during
the usability tests and interviews mixed with retrospective think aloud was used after the tests was done to get knowledge around what was observed.

3.1 Usability testing

According to Rubin and Chisnell (2008) some companies conduct usability testing as a way to develop their profitability of their products. In other words, make their products better. It also benefits the user in the end by doing new design decisions after finding and exposing valuable design issues from gathered data around the product. Usability testing is therefore about eliminating design problems and improving profitability. Having about five to twelve participants in the study is acceptable, but it can vary depending on the size of the task. The smaller the task is the smaller the number of participants has to be (Dumas & Redish, 1999; in Sharp et al, 2015).

When conducting a usability test, it is important to collect correct data about the user’s performance on the specific tasks, such as make a video recording when the participant is clicking on a certain element or caching their body language (Sharp, Preece & Rogers, 2015). Having a stabile ground is also a good thing, some core elements are therefor:

- Developing the research questions
- To represent an actual work environment
- Observation of the participant
- Interviewing and probing
- Collecting qualitative and quantitative measures
- Product design improvement recommendations

(Rubin et al, 2008)
In this project usability tests with eye tracking will be conducted. The usability test will be based and conducted on the relative elements presented in the bullet list above and to collect the correct data the tests will be video recorded to catch relevant face or body language. Accompanied with the eye tracking recordings the tests will be analysed to get the right result.

### 3.2 Observation

Cooper (2014) talks about how it can be hard for anyone (user or participant) to assess their own behaviour. Being a fly on the wall and observing without disturbing can therefore be a way to go. He also mentions that the two methods together (observation and interviewing) can be the most successful technique to gather qualitative user data, asking well thought questions and later on observe the behaviour in real time. During the usability tests presented in chapter four, observation will be used to gather qualitative data while the participant is conducting the tasks presented to them. As mentioned in the section above about Interviews, the topic around how the participant shops on the internet will be closely observed to later on assess the interview afterwards. Attention will be payed around how they navigate or around different key functions on the site. Key functions will be presented in chapter four in the design process, but a key function can be for example searching or navigating in the categories to find a the wanted product.

### 3.2 Interviews

Interviewing is about asking questions and having the questions answered. Cooper (2014) mentions the importins of knowing the difference of the user and the customer when interviewing. Also having current users and potential users in mind when you want to
redesign or improve a product. When having interviews with users Cooper mentions some information that could be useful to know, such as the context of the product, goals and motivations for using the product and problems and frustrations.

The kind of interviews applied in this project is semi-structured interviews. Semi-structured interviews are a mix between structured and unstructured interviews, where structured means that the interviewer has predetermined questioners. And unstructured are when the interviewer has less of control over the interview process, the interview can therefore be more of a conversation and more exploratory. (Sharp, Preece & Rogers, 2015). The main questions planned to be asked up in the interview accompanied in the usability tests are: “How do you shop on the internet?” and “How often do you shop on the internet?”. With these topics understanding around how the participant usually shops on the internet, what he/she uses to facilitate their shopping with and also when then they usually do it will be presented.

3.3 Think aloud test

A Think Aloud test (TA) is a combination of introspection and observation, telling the participant to talk out loud when he/she is doing something. Van Someren et al. (1994) explains that this method can avoid the interpretation by the subject and therefore conclude a simple verbalization process.

3.3.1 Retrospective Think aloud

RTA, Retrospective Think Aloud is a method where the participant mainly completes the intended task and afterwards verbalize what they have done. (Guam, Lee, Cuddihy & Ramey, 2006). This method mixed with semi-structured interviews is what was mainly used after conducting the usability tests. TA and RTA where used in this project to not interrupt the
participant during the test, the wanted purpose were to let the participant do exactly what they wanted without any directions or questions and during (TA) or after the test share why they did it.

3.4 Qualitative eyetracking analysis

When analysing the gathered data from the usability tests some parts of the qualitative analyse method is used. This method is used to focus on how a participant looks at something on the screen and later on analyse the eyetracking visualizations (Gazeplots and Heatmaps in this case) to figure out why. This, as Bojko (2013) describes it is to “explain usability issues revealed by behavioural data”. In this project the eyetracking visualisations will be also interpreted together with the video recordings made from the usability test. The qualitative eyetracking analysis is used when analysing the gathered data from the usability tests in the design process.

3.5 Pilot study

Sharp, Preece and Rogers (2015, p.230) describes a pilot study as “a small trial run of the main study”. The intention of a pilot study is to make sure that the method is feasible and that everything works as it is supposed to. According to Rubin and Chisnell (2008) it is an important step before doing usability tests where you can find out everything from how long the test takes or if the interview questions where easy to understand for the participant. Conducting a pilot study identifies a problem in advance and makes it easier to correct the problem for the main study (Sharp et al, 2015)
Doing a pilot study where crucial to this project because it made as mentioned above everything easier while doing the “real” usability tests in both planning and executing. It was also necessary in terms of knowing how to plan in terms of time.

3.6 Key functions

The user scenarios for the usability tests where based upon key functions on the CDON website. Key functions or critical points are different actions a consumer make while visiting an e-commerce site, it could be navigating on the site, find a product, register on the site, use the search field, paying and so on. This method was learned by the supervisor at CDON. Some of CDONs’ key functions will be presented in chapter 4, talking about preparing the usability tests.

3.7 Collaboration with the stakeholder CDON

Working with CDON as a stakeholder where educational by learning about how a website is build and how it works. Getting the chance to learn about and use the Tobii Pro technologies got me into a new field of experience. The employees that was worked with in this project came with a lot of helpful feedback when needed, for example how to work with the Tobii Pro Technology and also helped a lot whit participating in small trial test to facilitate the design process. I also got to learn about the different departments on CDON such as marketing and that helped with how to think within the design process.

3.8 Project plan

In this part, the project plan in every step will be presented in overall terms to get an overview on what was done in the design process. The project plan started out with a clear over view of
what I needed to do within the design process to develop a new UX method. Starting out with background and method research to explore the field and to choose a selection of methods that could be used to triangulate the results of the eye tracking data. The plan was also here to further on make sense of the data and add other perspectives to it. The next step where to design an experiment procedure, where the methods selected in the step above where used in combined with each other to further on be able to analyse and make sense of the data from the different methods. After designing the experiment procedure relevant e-commerce websites where chosen to demonstrate how the final outcome of the project, the UX- method worked in a usability test. The next step is to explore the UX- method by doing a pilot study and later on a case study in form of usability tests with participants. The last step was to evaluate the UX-method and see if it was working and generated meaningful results.

3.9 Ethics
As a researcher I will follow my common sense within the field of ethics, all informants and participants will be informed and showed respect and I will assume the ethical guidelines provided by Swedish Research Council (2017). A letter of consent was asked to sign by the people participating in the usability test before starting, to let them know that they would be video recorded and that materials would be used in a bachelor thesis project.
4. Design Process

This chapter presents the whole design process and discusses how the methods in section chapter four was used to develop a UX-method. Designing a method instead of a new product or service I feel can differ especially when it comes where your put time in the design process. For example, in a design process like this there are no prototyping aspects and no iteration process in that sense, instead there are a lot more time spent on method selection, research and gathering and analysing collected data.

4.1 Background and method research

I started out this project with researching everything within the area of eyetracking and usability testing to get a deeper understanding of what is happening, how it is happening and why it is happening. Also spending a lot of the on the Tobii Pro website (Tobii, 2018), watching webinars and instruction videos and reading different papers and user manuals to educate myself in how their products worked. Other than that, I read relevant literature on the field of usability testing, e-commerce and interaction design to get a good base for my project. Learning about e-commerce I choose to dig a bit deeper within marketing and shopping patterns to follow a red thread, for example why the user looks at certain elements on a page while browsing or online shopping.

4.1.1 Pilot Study with problems

As described in chapter 3, I conducted a pilot study early on to rule out any possible problems and to do a trial run of my user test with the Tobii hardware and software. My pilot study session was also about trying out the Tobii software and hardware and setting up the different...
features and try them out to see what worked. This was a learning process within itself and resulted in better understanding of what was supposed to happen in the main study in terms of both executing the test and planning the time for it. In the middle of the pilot study I noticed that there where a problem with the hardware and that it did not connect properly to when trying to calibrate. Sometimes it would disconnect after a couple of seconds when plugging it in with the USB cable and sometimes the computer could not find it at all. This resulted in getting in contact with the Tobii customer service to get support to see if the problem was fixable on its own or if there where anything I could do. This was not the case and it resulted in a meeting with a person from their customer service through a screen sharing session that confirmed that there where something wrong with the hardware and that it needed to be sent to Stockholm for a repair. It took about three weeks to get the eyetracker returned and this delayed the user testing very much.

Because I could not do any trial testing with the eyetracker at that time I improvised and conducted small interview tests instead where I simply acted out the user scenario with the test participant, took notes and later on asked the participant about the decisions they made and why. I did this three times with three different participants to keep myself up to speed and not to fall behind with the project. I also spend time thinking about other solutions to execute the user tests if the eyetracker would not come back in time. The decision made when thinking about other solutions without the eye tracker were to do the “real” tests as done while the eye tracker went on repair, because that was the only way that were already tested and actually worked. Additionally, I also knew that a lot more time had to be spent on setting up more questions to get more data if the eye tracker where not a part of the usability test. Also, more time would have been spent researching other methods to replicate a user test with the eyetracker. This where never done because fortunately the eye tracker came back repaired, and the backup plan did not have to be used.
4.2 Case study - Usability test with eyetracking

The user tests are divided in two different parts, originally three based on three different life like scenarios. The fist scenario is about using the CDON web site on its own, where the participant gets to brows and shop in one window. The purpose of this scenario was to see if the participant can navigate or manage all the different key functions on the CDON.com site.

The second scenario is about multitasking between two or three sites, because when shopping on the internet usually a customer is looking and comparing different websites to get the best deal. The purpose of this scenario was to compare different sites to each other and see what the participant chooses and why. The two sites that I choose to compare with where Media Markt and Elgiganten as mentioned in the theory section. After every task in the multitasking test the participant where told to choose a product and compare in on every site.

And the third scenario planned was about shopping on the internet in a “home” environment where everything can happen. I wanted to do this scenario test in the participants home to get the feeling of “internet shopping at home in your own environment”. The main purpose of this scenario was to see how the participants acts in a life-like situation and how it affects what or how they manage the site they are surfing on. And then compare this to the other scenario results to find how it differed. A negative aspect to this scenario is that the interruptions you can get in your own home such as your child disturbing you wanting food, can make the participant look away from the screen and the eye tracker and the result may not be tracked and valid.

Because of the problem with the Tobii Eye Tracker (mentioned above in section 4.1), I had to change the original plans and decided at a late time in the process, not to do the third scenario test. The third scenario test would have taken up too much time because of having to do it in
the participants home and so on. I will talk more about this in chapter 6, where I bring up “what went wrong” and discuss more in depth why and what I could have made different.

4.2.1 Preparing the tests

The user testing phase started out with writing scenarios based on different key functions at CDON.com, as a preparation before working with the Tobii Pro Software, Tobii Studios. The key functions can be different actions that the Internet shopper take while visiting an e-commerce website. I mapped out a simple flowchart of what the customer journey is on site and found the key functions there. Some of the key functions and/or critical points that I found on CDON are: search, navigate, find a price, checkout, pay, buy-button, back-button, add/remove product in cart, handle user data and find customer service/FAQ.

In the appendix all the scenarios made will be presented, firstly divided in larger groups of three: Pricing and Navigation, Customer information and completed orders and Customer Service and Information. And then categorized depending on what key function they are. Starting wide to get a larger perspective on all of the key functions, I came up with about 30 different scenarios and after that picking adding relevant ones for the companies. As mentioned in the theory section, CDON, Elgiganten and Media Markt all sells home electronics and that where what all the tasks presented in the usability tests was about. The scenarios used in the tests were:

Scenario Test 1

- Find a Tv for over 6000SEK. (navigation and price)
- Find a cheap Bluetooth speaker. (navigation and price)
- Find a headset from Logitech that you would like to have and put them in the cart. (navigation, search)
- Enter nearest campaign and find something that you would like to buy. (navigation, campaign)
- Find a treadmill in the category Sport and put it in your cart. (navigation category)
Scenario Test 2

- You want a new iPhone 8, find the one you want
- Now you want a new coffee machine by the brand Moccamaster KB952AO
- You want a new LG OLED65B7V television
- And know you want a new Playstation 4, find one that you like

4.2.2 Making the tests in Tobii Studios

The next step where to go through the scenarios presented above and add them in to the Tobii Studios program to develop the user test. By adding the different scenarios into instruction elements and structuring the test with a stimuli called screen recording after each instruction element, you get a finalized user test ready for step three of the project. Because I had only done this part a couple of times it was time consuming in a sense that I did not know exactly how I wanted it to look or turn out when I started.
4.2.3 Conducting the usability tests

I decided to divide the usability test in four different parts, Intro, Test, Interview and question-time. To structure this for every participant I made a small template that I will add below this section. In the introduction I presented all the essentials about the test to the participant and got them to sign the consent form. I also stated the scenario of the task and calibrated the eye tracking camera to the participants eyes.

Bojko (2013) mentions the importance of letting the participant know that their eyes are being recorded and how it is done. She states a great example of how to do so in her book that I used in my study.

“For the next part of the session, we are going to use the computer. There are cameras below the monitor that will record your eye movements as you are looking at the screen. Please sit back in you char and make sure that you can reach the keyboard and mouse. Find a comfortable position that you can maintain for the next 10-15 minutes without moving around too much”.

One key element that Bojko (2013) states, is making sure that the participant is comfortable, otherwise the usability test will be interrupted all the time.

After calibrating, I started the test and the participant where to execute the tasks presented on the screen. During the test I made notes on specific behaviour to prepare for the interview after. My initial plan where to have an interview after the test where I asked the participant questions about what the he/she was feeling, why he/she made certain decisions or if they thought anything was unclear or hard. I found out that this worked better in Scenario 1 because during Scenario 2, all four participants started to
think aloud without my directions. I will mention more about this in the discussion section.

To get a better understanding of the usability tests I will shortly present the people participating in the study in this section. Further down the participants will be referred to as PD (Participant D), PK (participant K), PT (Participant T) and PS (Participant S)

<table>
<thead>
<tr>
<th>Participant D</th>
<th>Participant K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female, 20-25 years old</td>
<td>Male, 50-55 years old</td>
</tr>
<tr>
<td>Beginner - regular</td>
<td>Regular</td>
</tr>
<tr>
<td>Randomly chosen own CDON</td>
<td>Chosen because of target group</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participant T</th>
<th>Participant S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male, 20-25 years old</td>
<td>Female, 26-30 years old</td>
</tr>
<tr>
<td>Professional</td>
<td>Beginner</td>
</tr>
<tr>
<td>Chosen because of target group</td>
<td>Chosen because of target group</td>
</tr>
</tbody>
</table>

4.1.2 The result material

In this section I will present the results and main findings from the usability test with each participant, the findings are combined with both eye tracking data, video recording observation notes and interview answers.

Test1 Participant D

CDON: Small product picture, hard to navigate in category fields, gave up and choose to use search field instead, site feels “squishy”.

Elgiganten: Smooth filtration, nice product information,
Media Markt: Small product pictures, easy to choose related products

Main finding: Chooses CDON when the price is the lowest, likes to use the search field

Test2 Participant K

CDON: very easy to use

Elgiganten: likes the product pictures

Media Markt: thinks that the site is messy, never chooses to buy here

Main findings: Only uses the search field when forced to, picture below shows participant looking frustrated and frowning. Never looks for the filtration elements, thinks aloud, looks for top rated products, uses prisjakt

In RTA participant explains that he does not use the search field because he is older and that when he started using internet years ago the search field did not good.

Figure 5: Picture showing gaze plot with video recoding incorporated (2018)
Test 3 Participant T

CDON: chooses CDON when the price is the lowest

Elgiganten: the site feels clean, nice picture gallery, over all the best product page

Media Markt: good product description

Main findings: Focuses on product pictures a lot, uses price filter, uses search field on every product

Figure 6: Picture of heat map showing focus on product pictures (2018)

Figure 7: Picture showing heat map where participant focuses on product pictures. (2018)
Test 4 Participant S

CDON: Too much promotional sales takes and gets distracted and frustrated, FAQ do not tell the consumer who is paying for the return of a product,

“CDON is still to connected with CD and DVD movies” – would rather buy expensive things on another site because it feels cheap

Elgiganten: chooses sometimes because of the physical store – easier to return or if problems occur.

Media Markt: chooses because of free shipping

Figure 8: Heat map showing participant S looking at price (2018)
4.1.3 Combined findings from result material

Participant D, T and S all uses search field a lot more than Participant K, who only uses it when he is forced to. After the RTA Participant K told me that he does not like to use the search because many years ago when the search field came it did not work properly and that he feels more safe navigating around in the categories, even if it takes more time. The product pictures play a big part when all of the participants are looking and comparing between the different web sites. The Heatmaps above shows how much time the participants actually spend time looking on them. CDON only “wins” when they have the lowest price, otherwise Elgiganten is well liked, both when it comes to product description, pictures and overall feeling. CDON product pictures are to small and two of the participants mentioned that the CDON site feels cramped and crowded. The eyetracking data also showed that sometimes the promotional sales on CDON takes over and confuses the participants and it ends up with the participant exiting the website. Another insight is also that the younger participants are faster, especially the participant T who is “the professional” when navigating on the different sites while the older participant takes his time. All participant also told me that they use the site Prisjakt\(^3\) when they shop on the internet to compare and find where the price is the lowest.

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\(^3\) www.prisjakt.se
4.3 Gathering data from the usability tests

This step of the project was about gather the data from the nine usability tests. As presented in chapter 2 about usability testing, I decided to video record the participant during the test to get better insight and remember what the participant was doing. This resulted in a lot of video material and this needed to be watched trough and trimmed for better visuals.

This part was also about sorting all of the gathered data in Tobii studios, throw away unnecessary files, such as short parts of screen recordings that did not tell anything or parts that had gone wrong. I also looked through all the video recordings from the usability tests and trimmed and edited the parts relevant for analysing. To find the relevant parts in every task in the test I watched the video recording and the eye tracking recording at the same time and searched for body or face language that could enhanced the mood that they were in or the feelings that they had towards a certain part or task in the test. Before I watched the video and eye tracking recordings I read through the observation notes that I wrote during the participant conducted the test that belonged to that certain task to have them fresh in the memory while watching.

In this step I also managed the eyetracking data and made Heatmaps and Gazeplots which are mentioned in chapter two, about eyetracking essentials.

My initial goal of the gathering step where to facilitate the analysing phase and make it much easier and structured for myself. It is also mentionable to add that this phase took a lot of time but where worth every minute. The challenge of this part of the project was time and I did not think that it would have taken as much time as it did. To make the time as useful as possible I started out with watching through the eye tracking recordings and making them presentable in gaze plots or Heatmaps also as mentioned above to delete and trim parts that did not show anything. For example, during the beginning of one the tests the participant accidentally
pressed “esc” and the eye tracker stopped recording. So therefore I had to start over and I also deleted that small part of the eye tracker recording because it only showed the “welcome screen”. I also learned to tell the participant that they should not press the “esc-key” during the test. After watching through the eye tracking recording and making the Gazeplots and Heatmaps I looked through the video recordings for the same reason, to delete any unnecessary data. The last step was the part that took the longest, to find the connections and make sense between the eye tracking and video recordings and the notes as presented above.

4.4 Analysing the data from the usability tests

The last part of the design process where to analyse the gathered data from the usability tests. The method, qualitative eye tracking analysis described in chapter 3 where used here in the analysis part of the project. But because of the openness of tasks in the usability test, only parts of the method were conducted. With openness of the tasks I mean that the participant in my usability tests were asked to execute open-ended tasks where him/she were free to interpret it themselves. For example, the participant was asked to: “Find a TV for over 6000SEK and put in the cart”. Here the participant can use multiple ways to find the product they want.

Bojko (2013) describes that the easiest way to analyse data in an open-ended task, like in this study where the participant is free to interpret and execute the tasks in their own way is to use eye tracking for observational purposes. An open-ended task can have the same results in the scenario that me as the designer sets, but the solutions, paths or decisions that the participant takes can vary.

Knowing this it was easier to analyse the gathered data by mostly observing the eyetracking videos that I recorded during the tests and finding out why the participant chose the paths they
did by reading through the interview answers and notes. I also compared the tests to each other where I knew the participants had similar ways to conduct a task or answered a question the same. The similar ways where for example finding a product with only using the search field or only finding it through navigating in the category section. One of the patterns observed were that all the participants used the search field on all sites when told to find a particular product such in task two and three in the second scenario test, instead of navigating through category. The other patterns and findings are presented in the section above in the result material.

5. Main results and final design

The way that eye tracking was applied and contributed for user testing in this project resulted in getting to know the competitors and where your e-commerce site stands in comparison to other e-commerce sites. This was found out through analysing the gathered data with the qualitative analysis method in mind from the tests and mainly observing and conducting the usability test with the eye tracker.

While conducting the second scenario on all participants in the usability tests I quickly found out that all the participants started to use the method think aloud without me telling them to. This gave me intel on what they were really looking for at the time and what made them actually decide to purchase a product when shopping on the internet. Another thing that I saw during the scenario two test where that it was easy for me to point out why and when the participant chose a product on CDON rather than on Media Markt or Elgiganten. Mostly, this was when the price where the lowest on the product that they were comparing. Asking the participant why they did not choose the product on CDON, 3 out of 4 participants had similar answers that said that for example that the product where harder to find or the product
pictures and product description where to small or hard to find. The eye tracking data actually confirms this, when looking on the eye tracking recordings the participants look a very long time on the product pictures which indicates that they do not register what the picture illustrate or simply do not see what it is on it. When for example the product information where hard to find the eye tracking recordings showed that the participant never even looked at it.

Comparing the sites beside each other in a life like matter and letting the participant decide and explain why they chose the way they did made me see the main problems that “my” site, CDON has. The main problems where: small product pictures, not able to find product information and bad category headings = hard to navigate in in categories.

Based on these findings I decided to make parts of my design process into a method that can be used by all e-commerce businesses that want to find out where their competitors actually steal the customers.

5.1 2-competitor Method

The final design concept of my design process is an analysis method that I decided to call the 2-competitor method for e-commerce businesses. The method is based on the findings from the usability tests and from the actual design process that was conducted. To get a clearer view and plan the usability tests, the method includes a template to fill in before conducting the tests. The main part of the template is stating the scenario, determine what competitor sites want to compare their own site to and what key findings they want to try out.

A usability test made with the 2-competitor method is where the designer conducts the test with eyetracking to compete their own e-commerce business site to two other sites to find out:
1. Usability issues that makes their site less attractable

2. What strengths and weaknesses their site has and by comparing the three sites, making them compete with each other and find out which one gets the end-purchase in every task

To get the wanted outcome of this method the data and the analysis of the data is important. Firstly, the data needs to be prepared for analysing, this means that the key functions of the website needs to be mapped out. Choose key functions based on critical aspects that wants to be compared to other sites and make user scenarios based on these key functions to put into the usability test as tasks for the participants to execute. It is also important to know what to look for and what the analysis is about. In the data, look for specific navigational and behavioural patterns, navigational patterns are for example searching or clicking on a product and behavioural patterns are for how long the participant is reading or locking at something or if the participant clicks on a picture or product various times (Kim et al, 2005). If the participant is reading something a long time this could mean that he/she have difficulties reading because of the size of letters being too small or if the participant looks at a picture for a longer amount of time it could mean that the picture is too small or unclear to see what it represents. Also look for recurring glances at elements, specifically marketing elements. It the participant is looking at a marketing ad numerous of times in the same task or in the whole test this could mean that the marketing ad takes up too much space and frustrates the participant and, in the end, makes them change website. This kind of analyse needs to be backed up with video recordings too see if the participant actually gets frustrated and this you can see on their facial expressions. Before making any assumptions or decisions it is important to use the RTA method and not interrupt the participant and let them explain after the test why they did certain things. Remember that the participant also can start to think
aloud during the test which helps directly. And if they are not explaining or remembering a certain part that you do, this needs to be brought up in the interview afterwards to ensure that the observation you have made is true. By observing the data, you can also notice if the participant has a good flow in their navigation, if the fixations are even between each other. They also tend to look at the price one last time before deciding on buying.

It is important to analyse the data in the right way, starting with qualitative eyetracking analysis where you look at how the participant looks at something and after that analyse the Heatmaps or Gazeplots. In open-ended tasks like in this method it is important to observe the eye tracking data and find out connections between the eye tracking and video recordings and also compare them to the other usability test made with another participant. The outcome of the analysis is for the designer to determine design issues on their site and improve their design to win more costumers over their competitors. The meaning of the 2-competitor method is for other interaction designers to use their website competitors as tools to compare and get help from to improve their own site. This method gives the interaction designer the combination of analysis aspects of observing the eye tracking data, video recordings and the observational and interview notes. The method also shows the competitors design solutions that can be useful and crucial if a site wants more consumers. With the guiding template, mapping out key functions, combination of analysis aspects and the possible end result of getting to know the status of your site and how to improve it in comparing to the competitor websites this method is useful for any interaction designer within the field of e-commerce.
6. Discussion and self-criticism

6.1 Evaluation of final outcome

The od is a good way to learn from your competitors. Something that I noticed, and think is good, is to compete with each other not only to find out what someone is doing better than yourself but to actually learn from one’s competition and learn from each other. I think that is one aspect to why things and trends changes quickly in this industry and why you need to keep up with the competition to stay on the market. Therefore I think that using this method can be a road to think outside the box and also challenge yourself to always keep up with existing trends and using your competition and learning from it, in both user experience but also in marketing within e-commerce.

Because of the lack of time there were no part of the process at the end to test out the method more and therefore it is only based on the findings from the usability tests but as mentioned in the findings in chapter four it is something that is found out early in the test process and continuously works throughout all the tests.

As described in chapter two, Sim and Koi (2002) talks about the importance of site information. This can easily be tested out using the 2-competitor method by adding in user scenarios based on key functions about product information and pictures or testing out the customer support or FAQ (frequently asked questions). When adding in the scenarios in the test you can find out exactly what the participant thinks about certain ways that the product information is listed on the competing sites. The method is generating meaningful results for the designer to improve their own website and at the end hopefully win consumers from their competitors.
6.2 Evaluation of design process

An important but time-consuming aspect of this project where to learn about and set up the Tobii hardware and software. And as mentioned above in the chapter about the design process the Tobii Eyetracker stopped working correctly and was needed to be sent on repair. When feeling that there was not time enough to conduct the third scenario test, I quickly let it go but I think that would have been valuable for the end result of this project. I also think that the outcome and final design concept of the project would have looked different and that I would have a lot more data on the subject, and with that said I know that conducting scenario three would be the first thing to do if the project would be further elaborated. When planning a project in the future I would have tried to plan more for upcoming problems. For example, look at alternative solutions to conduct the usability tests without the eyetracker.

When working with technology we know that there is always of risk it breaking or not working correctly, but this was not something that I did plan for in this project. And because of this there was a great fear of not be able to finish the project in time or not getting as much relevant data from the usability tests. As mentioned in the design process in chapter four, during the time that the eye tracker where sent on repair I conducted a couple of small pilot tests with just interviewing the participant. The reason for this where to not fall behind in the time plan and testing out a way to conduct the usability tests without the eye tracker. This helped a lot with mapping out the structure for the real tests and identifying small issues such as spelling errors or finding out that the test I made where too long. Interviewing the participant in the pilot study without the eyetracker also facilitated the time planning processes and got me focused on how many tasks every test should contain without it being too short or too long.

Before deciding to cut out the third scenario of the process I started plan to conduct it at the CDON office and act out the scenario with help from colleagues. The plan where to conduct
the usability test in a conference room and have someone walking in and disturbing the test to get the life-like feeling that I planned from the beginning. Then analysing the data and compare it to scenario test one and two. I realized quickly that it did not work out as I wanted it to and that it one “disruption” for the participant was not enough to get the data that I wanted. Also, the results would not be true if the participant would have felt manipulated to get results that I wanted. If I had more time and the eye tracker would have come back earlier from the repair, I would have spent more time on trying to figure out how to get closer to the feeling that wanted for the scenario three test without it feeling manipulated or forced and trying to conduct it in the time frame that I had.

The test scenarios developed in this study where crucial to the outcome of this project. It resulted in putting each e-commerce site against each other and letting them compete with what they had. When interviewing Participant S during the second scenario test, she talked a lot about “how the site speaks to you” and the different marketing aspects that the sites offers. Promotional sales, as described by Laudon & Traver (2010) in chapter 2 where the marketing strategy is to get the consumer to “buy now”, I noticed can actually be a deal breaker at the end. It can catch the focus and get the consumer to buy it or it can have the opposite effect, and as mentioned in chapter four it had the opposite effect on participant S. She got distracted and frustrated by all the promotional sales marketing on the CDON site and chose to buy the product on one of the other e-commercial sites instead. She thought that the promotional sales marketing where every ware she looked, and that she felt like she where forced to buy things that she did not want and therefore she ended up just exiting the CDON site in frustration. This shows that too much promotional marketing can scare the consumer away.

Learning about key functions and mapping them out was something that I learned from my supervisor at CDON as mentioned in chapter 2, early in the process and this helped a lot with understanding how a e-commercial site is build and what the customer flow looks like. This
facilitated the process of creating the user scenarios (based on the key functions) and making the usability tests by setting up the tasks in Tobii Studios a lot. It was also this part of the process where the thought of making a template came to happen, to facilitate future tests.

6.3 Evaluation of partnership with company

Working with CDON was an educational experience where I got to work on my own with help from my supervisor if wanted. Because of the Tobii Pro equipment being quite expensive, I am glad to have had the chance to be able to learn about and work with it. It has also helped having the company behind you a lot when getting in touch with the Tobii Pro customer support and such.

7. Conclusion

The research questions that this study answers are: How can eye tracking be applied and contribute in user testing for e-commerce? and How can eyetracking data be analysed and how do the results inform designers to design for e-commerce? The study shows that by conducting usability testing with eye tracking is useful in the way of getting useful information about design issues or problems on your own e-commercial site.

The design process in the project is divided in a couple parts, staring out with background research to discover the field of eyetracking, learning about e-commerce and marketing and the focusing around the intended problem. The research process was crucial not only learning about the field of eye tracking but also to get to know the Tobii Pro equipment to be able to conduct the usability tests. The next step was design an experiment procedure where the methods combined with each other to for analyse. Relevant e-commerce websites where
chosen to demonstrate the final outcome, the 2-competitor method. The next step was to explore the method in a case study in form of usability tests. The participants conducting in the usability tests brought a lot of helpful insights and feelings that strengthened the outcome of the study that resulted in an analysis method called the 2-competitor method. Where an e-commerce business can compare their own site to two competitor sites and find out why and where the consumer chose to buy their products in the end stage of the consumer flow. The last step of the design process was to evaluate the method developed. The method can be used in a later stage of the design process to determine design issues or to realize different marketing strategies. This study contributes with knowledge around conducting usability tests with eye tracking within e-commerce and presents a useful method to e-commerce businesses within the field of interaction design.

7.1 Future work

Because of the relevancy in time of this area of field in this project I think that it can be further elaborated. The first thing that I would do is to plan the third life-like scenario to get the data and see how it differs from the data I have today. Otherwise I would get in contact with different e-commerce business and make them use the method to see what that can elaborate. I think that getting results from different businesses would be crucial to know how the method actually works and then how to develop it further.
References


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Swedish Research Council (2017) Good Research Practice


Appendix I:

Scenarios

Prisuppgifter & Navigering

1. Hitta en TV för under 6000kr och köp den (hitta pris, sök, navigering, köp, kassa)

2. Hitta en bildskärm, en stationär dator, en mus och ett tangentbord och lägg dessa i varukorgen. Ta sedan bort musen. (navigering, varukorgen, mer än en produkt, ta bort en produkt)

3. Hitta ett par hörlurar av märket Logitech, kontrollera lagerstatus och köp dem (sök, navigering, köp)

4. Leta upp kategorin Ljud & Bild och hitta valfri DVD-spelare (navigering via kategori)

5. Du vill ha 5st HP 364 cyan bläckpatroner och 6st Epson 16 cyan bläckpatroner. Plocka bort 2 av varje bläckpatron från varukorgen (sök, navigering, flera av samma produkt, hantera varukorg, tillbaka till samma sida)

6. Leta upp den billigaste och den dyraste bärbara datorn (navigering, pris)

7. Leta upp en laserskrivare av märket Samsung och lägg den i varukorgen (navigering, sök)

8. Hitta den billigaste bärbara högtalaren och köp den (navigering, pris, kassa)

9. Köp en Samsung Galaxy s7 Edge och hitta ett displayskydd till (sök, navigering, kassa)

10. Leta upp de dyraste och de näst dyraste högtalarpaket och köp en av dem (pris, navigering, kassa)

11. Hitta en bildskärm som är mindre än 27” (navigering kategori)

12. Hitta en dator mellan 9000-14000kr och köp den (navigering, pris, kassa)

13. Leta upp en TV för över 10000kr och en för runt 5000 kr (navigering, pris)

14. Hitta den billigaste systemkameran och den näst billigaste (navigering, pris)

15. Hitta en Mjukvara dator och köp till ett antivirus program

16. Lägg till 4st Mac datorer i varukorgen och ta sedan bort 1

Kontoinformation & slutförda beställningar

1. Ändra telefonnumret på ditt konto (navigering, ändra kontoinformation)

2. Lägg till en ny leveransadress (navigering, lägg till kontoinformation)

3. Du väntar på en leverans på ditt senaste köp från förra veckan, kolla vilken status den beställningen har.

4. Du vill köpa 4st datorer av samma märke som du redan har beställt men du kommer inte ihåg vilken modell det var. (leta bland postade beställningar 17-01-06 ACER, navigering, kontoinformation)
5. Ändra i en redan tillagd leveransadress (navigering, ändring av kontoinformation)

6. Leta upp ett gamma kvitto som inte är från detta året (navigering i kontoinformation)

7. Ändra lösenord på ditt konto? (navigera, ändra kontoinställningar)

8. Kolla upp vad du har för kundnummer (navigering bland kontoinformation)

**Kundservice och information**

1. Gå in på kundservice och leta upp information om hur man reklamerar en vara (navigering, kundservice)

2. Hitta information om hur man avbeställer en vara. (information)

3. Du vill reklamera en vara men vet ej hur de fungerar, vart på sidan vänder du dig? (navigering, information)

4. Leta upp frågor som många ställer till kundservice (navigering, kundservice)

5. Leta upp information om leveranstid och fraktkostnad (navigering, kundservice, information)

6. Betalningsinformation, vilken typ av betalning finns tillgänglig

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**Appendix II:**

**2-competitor guide template**

*User scenarios, interview questions and notes*

**Number of tests:**

**Number of participants:**

**Key functions:**

**Participant info:**

**User scenario**

*Here you add the user scenarios based on the key functions or critical points on you website that you want to investigate*

**Intro**

*Here you add what you are going to say to the participant, the introduction of what you are going to do. It is important that you tell the participant what is going to happen and that you will observe during the test.*

**Pointers:**
- Tell the participant to find a comfortable position before starting the eye tracking calibration
- Tell them that you will have an interview session after the test
- Tell them that they are welcome to ask questions during the test if something is unclear or they do not understand, otherwise save the questions for after the test is done.

**Participant tasks**

*Here you add the tasks based on the user scenarios to later on put into your eye tracking software to make the usability test.*

**Interview questions**

*Here you add the interview questions you are going to ask to the participant after the test.*

**Observation notes**

Don’t forget to make notes during the test to later on facilitate the analysis process. You can make them here in the template or in a notebook on the side.