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Small Things Do Matter

An Overview of the Usability of Nationalparks.fi from Two Perspectives:  
User-Centered Translation and Usability

Master's Thesis in English Studies

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## TABLE OF CONTENTS

PICTURES	2
TABLES	3
ABSTRACT	5
1 INTRODUCTION	7
1.1 Material	9
1.2 Method	14
2 TOURISTS EXPERIENCING THE ONLINE WORLD	18
2.1 Tourists as users	18
2.2 User experience	20
2.3 Credibility of websites	21
3 USABILITY AND ITS RESEARCH	24
3.1 The concept of usability	24
3.2 User-centered translation	27
3.3 How to assess usability	28
3.3.1 Heuristic evaluation	30
3.3.2 List of heuristics	32
3.4 Usability problems and their severity	35
4 OVERALL USABILITY OF NATIONALPARKS.FI	37
4.1 Summary of the findings	37
4.2 General usability aspect	42
4.2.1 Navigation	42
4.2.2 Link functionality	45
4.2.3 Aesthetic and minimalist design	50
4.2.4 Effective information design	53

4.3 UCT aspect	58
4.3.1 Consistency	58
4.3.2 Match between ST and TT	60
4.3.3 User's language	62
4.3.4 Idiomatic language	65
5 CONCLUSIONS	70
WORKS CITED	74
Appendix 1. Example of a national park's front page: Oulanka	79
Appendix 2. Collage of the repeated elements on Oulanka's front page	80
Appendix 3. The menu of Hiking in Finland section	81
PICTURES	
Picture 1. The top of the front page of Nationalparks.fi	10
Picture 2. The main sections of Nationalparks.fi	11
Picture 3. The national parks chosen for this study	12
Picture 4. Links to news stories at What's New section	13
Picture 5. Result of a faulty link	15
Picture 6. Information offered in Finnish in the form of links	15
Picture 7. Example of a national park's navigation menu	44
Picture 8. Error message of the link of Raatamo.fi	46
Picture 9. Error messages of a faulty internal link	46
Picture 10. Error message of the link of Tiehallinto.fi	47
Picture 11. Link that leads to Instagram account of @luontoon.fi	48
Picture 12. Example of a metatext	49
Picture 13. Long and dense text	51
Picture 14. Too many Latin names in a text	52
Picture 15. Different font styles on the front page	53
Picture 16. Outdated blue frames	53
Picture 17. Repetition of links leading to Safety section in Hiking in Finland	54

Picture 18. Another link leading to Safety section in Hiking in Finland	54
Picture 19. Repetition of content on Rokua's pages	55
Picture 20. Prohibited area shown in a map	56
Picture 21. Two different map options on the front page	57
Picture 22. Problematic abbreviation	59
Picture 23. Omission of a link	61
Picture 24. Information offered in Finnish in the form of links	62
Picture 25. Brochure in Russian	63
Picture 26. Description of an enterprise's activities in English	64
Picture 27. Hummocks create circular bog pools at Kauhaneva Mire	67

## TABLES

Table 1. The list of heuristic tailored for this thesis	34
Table 2. Nielsen's (1995) severity rating for usability problems	36
Table 3. Usability problems discovered in the research material	38
Table 4. Usability problems related to the general usability aspect	39
Table 5. Usability problems related to the UCT aspect	41
Table 6. The heuristic of navigation	43
Table 7. The heuristic of link functionality	45
Table 8. The heuristic of aesthetic and minimalist design	50
Table 9. The heuristic of effective information design	53
Table 10. The heuristic of consistency	58
Table 11. The heuristic of match between ST and TT	60
Table 12. The heuristic of user's language	62
Table 13. The heuristic of idiomatic language	65



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**ABSTRACT**

Tässä pro gradu -tutkielmassa analysoin Metsähallituksen Luontopalvelujen ylläpitämän Nationalparks.fi-verkkosivuston kokonaiskäytettävyyttä käyttäjakeskeisen kääntämisen (UCT) ja yleisen käytettävyyden näkökulmasta. Nämä kaksi näkökulmaa tarjosivat tutkimukselleni myös menetelmän eli heuristisen arvioinnin. Suoritin heuristisen arvioinnin itsenäisesti tämän tutkimuksen tarpeita varten muokkaamani heuristiikkalistan avulla. Heuristiikkalistassa on kaksi aspektia: yleinen käytettävyys ja käyttäjakeskeinen kääntäminen, joihin kumpaakin kuuluu neljä erillistä heuristiikkaa eli yleistä käytettävyysperiaatetta, jotka auttavat löytämään käytettävyysongelmia.

Heuristisen arvioinnin avulla Nationalparks.fi-sivustolta löytyi yhteensä 160 käytettävyysongelmaa, joista 7 on vakavuusluokitukseltaan katastrofaalisia, 45 suuria, 57 pieniä ja 51 kosmeettisia. Heuristiikkalistan kahden aspektin välillä ei ollut eroa käytettävyysongelmien suhteen, sillä kumpaakin aspektiin liittyi tasan 80 käytettävyysongelmaa. Näissä kahdessa aspektissa korostuivat kuitenkin eri heuristiikat. Yleisen käytettävyyden aspektissa hyperlinkkien toimivuuden heuristiikkaan liittyi yhteensä 50 ongelmaa ja tehokkaan informaatorakenteen heuristiikkaa rikkoi yhteensä 20 ongelmaa. Käyttäjakeskeisen kääntämisen aspektissa huomattavasti eniten ongelmia löytyi liittyen idiomaattisen kielen heuristiikkaan, yhteensä 47 ongelmaa. Ongelmien suuri määrä selittyy sillä, että monet löydetyistä ongelmista toistuivat materiaalissa hieman erilaisina.

Tutkimukseni osoitti, että heuristinen arviointi heuristiikkalistan avulla on toimiva metodi verkkosivuston käytettävyyden tutkimiseen ja että yksittäinenkin arvioija pystyy löytämään ongelmia. Huolimatta löydettyjen käytettävyysongelmien suuresta määrästä, saaduista tuloksista voidaan päätellä, että Nationalparks.fi on käytettävyydeltään hyvää tasoa. Monet pienet, toistuvat ja samankaltaiset ongelmat vaikuttavat kuitenkin sivuston uskottavuuteen. Sivustoa kannattaisi oikolukea ja päivittää useammin, jotta usein toistuvilta ongelmilta vältyttäisiin.

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**KEYWORDS:** UCT, user-centered translation, usability research, usability, websites, heuristics



## 1 INTRODUCTION

User-centeredness is becoming more and more acknowledged in different areas of business. Thus, if one wants services and products to be usable, they should be user-friendly since the users know what they want and they definitely know what they do not want. User-centeredness is very prominent in the case of the internet. Most of the content on the internet is specialised for a certain purpose and for certain groups of users. Users from athletes to do-it-yourself builders find the information they need from various websites. However, the user is not going to stay on a website for too long if the navigation is difficult, the links do not work and the content is hard to understand. In other words, this type of a website is not *usable* and will not entice the users to visit the website again.

Foreign tourists, who seek for information about Finland's nature destinations will most likely find Nationalparks.fi website which offers information about the nature destinations in Finland from national parks to wilderness areas. In this Master's thesis, I will study the overall usability of the website Nationalparks.fi, which is the English language version of the Finnish website Luontoon.fi. The website complex with its seven language versions (Finnish, English, Swedish, Russian, Chinese and two types of Sami) is operated by Metsähallituksen Luontopalvelut, Parks & Wildlife Finland in English. It is a subsidiary unit for the state-run enterprise Metsähallitus (National Board of Forestry). Metsähallitus has different public administration duties and business activities that have separate business units like Parks & Wildlife Finland. Parks & Wildlife Finland's tasks include the management of wilderness areas, recreational areas and other special areas. (Metsa.fi 2017.)

My aim is to create an overall picture of the usability of Nationalparks.fi website. I will analyse and assess the usability of the website in depth from two perspectives: usability research and user-centered translation (UCT). These two perspectives will help to create a picture of the overall usability of the website. In order to achieve the aim, I seek to answer three research questions. The research questions are: 1) What are the found usability problems like? 2) How severe are the found usability problems? 3) How many of the found usability problems are related to translational aspects? These simple research



questions will guide this study and the answers will provide interesting data for Parks & Wildlife Finland. I will answer the research questions in chapter 5 as part of the conclusions.

Parks & Wildlife Finland have not commissioned this study. However, they launched a website reform project in the beginning of 2018 and are thus interested to see the results of this study. In their project, Parks and Wildlife Finland aim to improve the search, the mobile use, and the visual appearance of the website complex. Parks and Wildlife Finland have also done their own assessments of the usability of the website complex. Their project was commissioned because of the increased use of the website (also the mobile use) and the increased visits to the actual nature destinations. (Metsähallitus, Luontopalvelut 2017.)

In addition to Parks and Wildlife Finland's assessments of usability, this thesis provides additional details on the usability of Nationalparks.fi. In other words, this thesis focuses on different things than Parks and Wildlife Finland in their project. The general usability of Nationalparks.fi is assessed from the point of views of navigation, information design and link functionality, for example. Furthermore, the usability is also examined from the point of view of user-centered translation (UCT), and thus the focus is also on language and translation.

Even though Finland is a small country, tourists find their way here. For example, in total 5,771,275 foreigners used accommodation services in Finland in 2016 (Tilastokeskus 2017). Therefore it is reasonable and sometimes also profitable to offer information to foreign tourists. Although Nationalparks.fi or the other language versions do not make any profit, the website complex was created to offer information to all people interested in Finnish nature. Moreover, traditional brochures did not meet the requirements of modern communication. In other words, the brochures did not allow Parks and Wildlife Finland to present all the nature destinations there is in Finland, so the first language versions of the website complex, Finnish and Swedish, were released in 2004. (Metsähallitus, Luontopalvelut 2017.)

The website complex with its all language versions gathered 1,8 million visitors in 2016. The share of Luontoon.fi was about 1,5 million visitors and the share of Nationalparks.fi was about 180,000 visitors. The website complex has plenty of users, and thus Parks and Wildlife Finland aim to use precise linguistic expression on the website complex and update it in real time. (Metsähallitus, Luontopalvelut 2017.) If perhaps the largest website on Finland's outdoor destinations and activities does not give the user updated information in an easy and comprehensible way, the user will have a negative experience and will look for the information elsewhere. Different tourist information and nature centres help tourists but in today's technical era, it is more than recommended to keep websites user-friendly and updated.

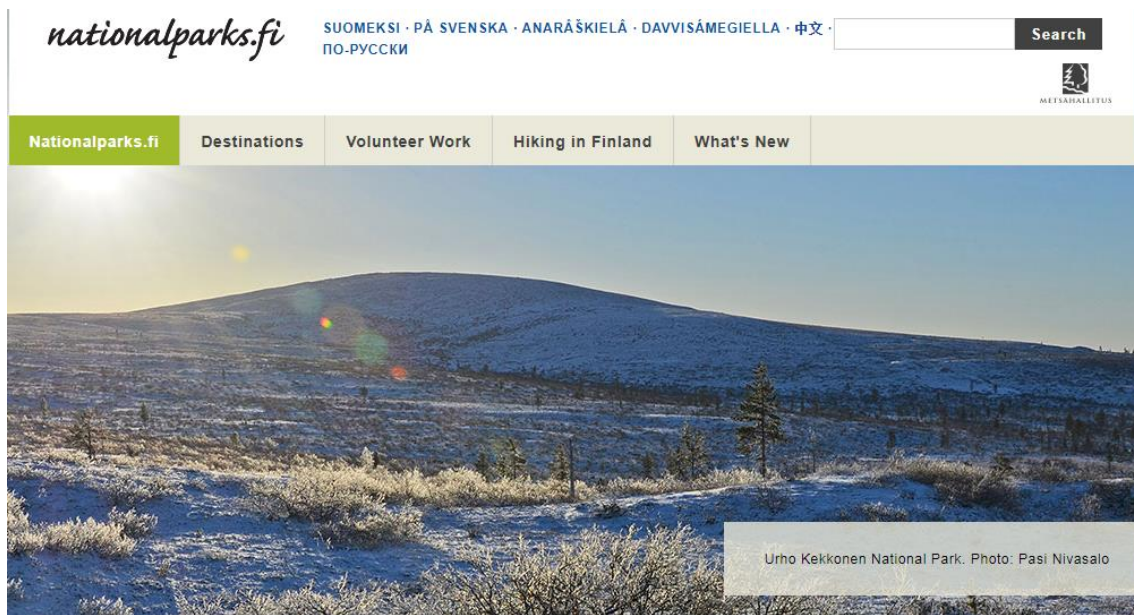
In the following sections 1.1 and 1.2, I will describe the research material and the method chosen for this study. In chapter 2, themes connected to online usability are introduced. Chapter 3 will present the two theoretical viewpoints of this study: usability and user-centered translation (UCT) and discuss how usability can be assessed. In the following chapter 4, the actual analysis and discussion of the material is presented. Finally, chapter 5 presents the conclusions drawn from the analysis and discussion.

## 1.1 Material

The material of this thesis is parts of Nationalparks.fi website, which is the English version of the Finnish Luontoon.fi website (see Picture 1 on the next page). The website complex with its seven language versions is a large database of national parks and other nature destinations in Finland. It is maintained by Parks and Wildlife Finland. The site also offers information about hiking and everyman's right<sup>1</sup>, for example. The focus of this thesis is Nationalparks.fi, and the Finnish Luontoon.fi will serve as a source text when needed. I will not examine the other language versions.

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<sup>1</sup> “‘Everyman's right’ is a traditional Finnish legal concept that gives people the right to access just about any of the country's land and waterways. Unlike in many other countries, everyman's rights in Finland are quite broad, and they also apply to foreign citizens.” (Metsä.fi 2015.)



**Picture 1.** The top of the front page of Nationalparks.fi

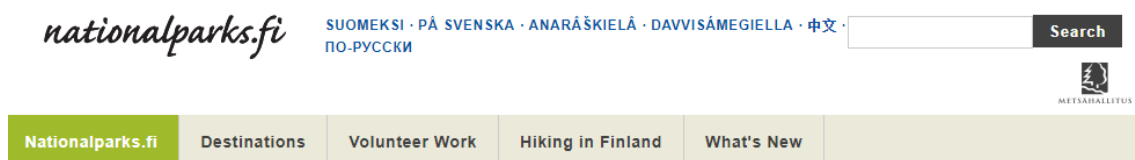
As Nationalparks.fi is such a large database of Finland's nature destinations, other websites can utilise the vast amount of information provided on it. For example, Visitfinland.com has links to Nationalparks.fi at the time of writing this thesis. A similar website to Nationalparks.fi is Retkipaikka.fi, but is only available in Finnish. Nationalparks.fi is currently available in Finnish, English, Swedish, Russian, Chinese and in two types of Sami (Nationalparks.fi 2018).

I chose Nationalparks.fi to be the object of my study because Nationalparks.fi is very familiar to me. I worked for nine months in total over three years for Parks and Wildlife Finland. In addition to my work as a nature guide, I updated Nationalparks.fi and Luontoon.fi websites and did some short translations into English. This is what originally roused my interest on the matter since it might be the case that many different people have provided English translations for the site, and it is possible that they are not professional translators. This situation could indeed generate translation-related usability problems.

With regard to the professional level of translators of Nationalparks.fi, Parks and Wildlife Finland state that most of the texts in Nationalparks.fi are translated by professional

translators (Metsähallitus, Luontopalvelut 2017). Still, it is useful to examine the usability of the website also from the point of view of translations, especially when one considers the vast size of the website. Moreover, as mentioned in the introduction, Parks and Wildlife Finland does not concentrate on the translations in their reform project but on the search, the design and the mobile use.

In order to create a good picture of usability of Nationalparks.fi, I decided to include all the main sections found on Nationalparks.fi: *the front page*, *Destinations*, *Volunteer Work*, *Hiking in Finland*, and *What's New*. Picture 2 portrays the different main sections of Nationalparks.fi, the green element being the front page. From the five sections, the front page, Volunteer Work, Hiking in Finland and What's New are examined entirely.



**Picture 2.** The main sections of Nationalparks.fi

Problematically, Destinations section contains approximately 200 destinations varying from wilderness areas to hiking trails. Thus, Destinations section is too vast to be examined entirely. However, Parks and Wildlife Finland informed me that they are going to decrease the number of destinations approximately to 60, of which 40 are going to be Finland's national parks. The reason for this reduction of destinations is the fact that the users visit mainly national parks' pages. The pages of smaller and less famous destinations do not have many visitors. (Metsähallitus, Luontopalvelut 2018.)

Due to the major reduction of the destinations, I decided to examine the pages of national parks from Destinations section because they are definitely going to exist after Parks and Wildlife Finland's reform project. More precisely, I decided to include every tenth of the national parks according to the navigation menu of national parks. Picture 3 presents the navigation menu and the chosen national parks that are underlined with red colour. With

this outline, the national parks chosen for this thesis are Kauhaneva-Pohjankangas, Oulanka, Rokua and Valkmusa.

National Parks	
Archipelago	▼
Bothnian Bay	▼
Bothnian Sea	▼
Ekenäs Archipelago	▼
Gulf of Finland	▼
Helvetinjärvi	▼
Hiidenportti	▼
Hossa	▼
Isojärvi	▼
<u>Kauhaneva-Pohjankangas</u>	▼
Koli	▼
Kolovesi	▼
Kurjenrahka	▼
Lauhanvuori	▼
Leivonmäki	▼
Lemmenjoki	▼
Liesjärvi	▼
Linnansaari	▼
Nuoksio	▼
<u>Oulanka</u>	▼
Pallas-Yllästunturi	▼
Patvinsuo	▼
Petkeljärvi	▼
Puurijärvi and Isosuo	▼
Pyhä-Häkki	▼
Pyhä-Luosto	▼
Päijänne	▼
Repovesi	▼
Riisitunturi	▼
<u>Rokua</u>	▼
Salamajärvi	▼
Seitseminen	▼
Sipoonkorpi	▼
Southern Konnevesi	▼
Syöte	▼
Teijo	▼
Tiilikkajärvi	▼
Torransuo	▼
Urho Kekkonen National Park	▼
<u>Valkmusa</u>	▼

**Picture 3.** The national parks chosen for this study

Practically every page on Nationalparks.fi has links, either to pages within Nationalparks.fi or to websites outside Nationalparks.fi. This means that the chosen research material also has a great deal of links. However, the content behind the links is not assessed. For example, What's New section has links to news stories (see Picture 4), thus the functionality of the links is checked but the content behind the links is not evaluated.

1/5/18

Modern World Heritage information and experiences in the World Heritage Site High Coast / Kvarken Archipelago

11/14/17

The Symphony of Extremes - Born from Finnish DNA is a project where we examine our heritage and turn it into music that reflects these extremes

11/14/17

The first Video released to introduce Trails in National Parks

1 2 3 4 Next >

---

**Picture 4.** Links to news stories at What's New section

Even though the material exists online, I took screenshots of all the sections and pages of Nationalparks.fi that were chosen for the study. The screenshots cover both Nationalparks.fi and Luontoon.fi because Luontoon.fi serves as the source text in some cases. I took the screenshots in the beginning of 2018 so that I had the material collected before Parks & Wildlife Finland started their reform project. Thus I had a “frozen image” of the material if Parks & Wildlife Finland would have altered the websites unexpectedly during the time of writing this thesis. Close-ups of the screenshots will be provided as examples in chapter 4, where the findings will be discussed. In addition to the screenshots, I visited the actual Nationalparks.fi website to test whether the links work and lead to the intended target websites.

Lastly, I will give a list of central terms used in this thesis when discussing the different parts of Nationalparks.fi (adapted from Riippa 2016: 13).

- **Website/site:** the entire website of Nationalparks.fi consisting of different elements such as sections, pages, browser windows etc.
- **Web page/page:** a part of a website open in a browser window at a time. It needs to be scrolled down in order to see the whole content. If used in plural, the term describes a larger entity, e.g. pages of Oulanka National Park.
- **Section:** describes parts of different navigation menus. For example, the main navigation menu on the front page of Nationalparks.fi has the following sections: Destinations, Volunteer Work, Hiking in Finland and What's New. Moreover, for

example the national parks have their own navigation menus with different sections, such as Activities, Instructions and rules and so on.

- **Front page:** can be the actual front page of Nationalparks.fi or a front page of some larger section within Nationalparks.fi, e.g. the front page of Hiking in Finland section or the front page of Oulanka National Park's pages.
- **Screenshot:** a cropped part of a page saved for research purposes; it can be anything from a whole page to a small piece of a page. Screenshots are used as examples in the analysis section.

## 1.2 Method

From more a general point of view, this research can be seen to represent a qualitative case study. In a qualitative case study, the researcher concentrates on a specific case and aims to produce detailed information on the chosen case (Koppa 2010a). Qualitative refers to the basic methodological nature of the research. It enables the researcher to understand the quality, meanings and characteristics of the research subject in depth. (Koppa 2010b.) In addition, this study has quantitative features as the findings, that is the usability problems, are also presented in the form of numbers in various tables.

In addition to the general research strategies pointed above, I needed an appropriate method to reach my aim, that is, to create an extensive picture of the usability of Nationalparks.fi website. The most suitable method for this research is heuristic evaluation which is a type of an expert evaluation that assesses usability of the chosen object and helps to find usability problems (Korvenranta 2005: 113). In other words, an evaluator examines which elements of the product stand out and whether the elements create a negative response, a usability problem. Usually a small set of evaluators conduct the evaluation (Nielsen 1995a), but a single evaluator can also do it, as is the case in this thesis. The advantages of heuristic evaluation are its rapidity, ease of use and cost-effectiveness (Nielsen 1994: 25). It is also fit for small-scale projects (Suojanen, Koskinen & Tuominen 2015: 81), such as a Master's thesis.

The point of the analysis via heuristic evaluation is to detect usability problems. In this study, a usability problem can relate to a general usability aspect, for example a link that does not work or content that is not presented intelligibly. Picture 5 demonstrates a situation where a link does not work. A usability problem can also relate to a user-centered translation aspect, for example a non-idiomatic word choice or failing to use the user's language, English. Picture 6 presents an example of a situation where the provided links offer information in a language that the user of Nationalparks.fi would not understand, that is, Finnish.



**Picture 5.** Result of a faulty link

**Sources:**

- [www.punkki.fi](http://www.punkki.fi) (In Finnish)
- [The National Institute for Health and Welfare \(THL\) \(www.thl.fi\)](http://www.thl.fi)
- [Yle: luonto ja ympäristö \(www.yle.fi/oppiminen, in Finnish\)](http://www.yle.fi/oppiminen)

**Links:**

- [Borreliosis \(www.reumaliitto.fi, In Finnish\)](http://www.reumaliitto.fi)
- [Tick-borne encephalitis TBE \(www.thl.fi, in Finnish\)](http://www.thl.fi)

**Picture 6.** Information offered in Finnish in the form of links

I selected heuristic evaluation to be the overarching method of research because it is familiar to me from the Bachelor's thesis I wrote for communication studies (Orava 2015). In the Bachelor's thesis, I conducted a heuristic evaluation for the two e-mail interfaces University of Vaasa used at the time. I am thus competent with this particular method and it is rewarding to develop my set of skills from communication studies to translation studies.



The theoretical viewpoint in the Bachelor's thesis was usability research, an orientation which is carried on to this Master's thesis. In addition, the theoretical viewpoint is broadened to include user-centered translation (UCT) as well. Both theoretical viewpoints are user-centered and provide practical tools for assessing usability. In fact, UCT and usability research are combined in the chosen method, heuristic evaluation, which is used in both fields of research. The greatest difference in heuristic evaluation between UCT and usability research is the object of usability assessment. In UCT, the object is primarily a translation and in usability research the object can be an interface or a product.

The object of this research, the English version of Luontoon.fi website, combines both website interface and translation. Therefore the method has to be applied accordingly. The combination of general usability and UCT features are most visible in the list of heuristics. It is a list consisting of basic usability principles, heuristics, which aid me to find and categorise usability problems on the Nationalparks.fi website during the heuristic evaluation. The detected problems violate some of the heuristics and are therefore counted as usability problems.

I tailored a specific list of heuristic for the purposes of this study (see Table 1 in section 3.3.2). The two main categories, *General usability aspect* and *UCT aspect* derive from the theoretical framework of this thesis. For a more detailed description of each heuristic, see Table 1 in section 3.3.2 or the subsections dedicated for each heuristic in chapter 4.

*The general usability aspect* contains the following four heuristics:

- 1.1. Navigation
- 1.2. Link functionality
- 1.3. Aesthetic and minimalist design
- 1.4. Effective information design

*The UCT aspect* contains the following four heuristics:

- 2.1. Consistency
- 2.2. Match between source text (ST) and target text (TT)
- 2.3. User's language

## 2.4. Idiomatic language

I conducted the heuristic evaluations by myself in January, February and March 2018, although both Nielsen (1995a) and Jeffries and Desruvire (1992) point out that a single evaluator is not the best possible solution when conducting heuristic evaluation. They argue that the single evaluator will not be able to find all the usability problems compared to several evaluators. However, the scope and time limitations of this thesis did not allow me to gather a group of evaluators. In addition, Parks and Wildlife Finland assesses the usability of Nationalparks.fi (and other language versions) on their behalf, and when combined with the heuristic evaluation of this thesis, there will eventually be several evaluations of the website.

Even though the typical time for a heuristic evaluation session is approximately from one to two hours (Nielsen 1995a), I allowed myself more time depending on the section. Because some of the sections had more text, links and information than others, and as a non-native speaker of English, it consequently takes more time than an hour or two to evaluate the larger sections. In addition, as non-native speaker of English, I have to check certain words and expressions from dictionaries (MOT 2018; IATE 2018; TEPA 2018; Oxford Advanced Learner's Dictionary 2005) to make sure that the used ones are idiomatic and natural English. It also seems that Nationalparks.fi uses more British English than American English, so I also kept this in mind while assessing the choice of words and expressions.

In addition to the heuristic evaluation, I rated the found usability problems by their severity. The severity rating helps to organize the results and gives a clearer image of the usability of Nationalparks.fi. The rating consists of four levels: cosmetic problem, minor problem, major problem and catastrophic problem. (Nielsen 1995b.) The severity rating scale will be elaborated on in section 3.4 and section 4.1 discusses the severity ratings of the found usability problems.

## 2 TOURISTS EXPERIENCING THE ONLINE WORLD

In this chapter, I will introduce concepts that are closely related to the research subject of this thesis: tourism, user experience and the credibility of websites. Section 2.1 explains how tourism is related to the research subject. Section 2.2, in turn, discusses the concept of user experience. Finally, section 2.3 considers the credibility of websites and introduces concepts that apply to Nationalparks.fi.

### 2.1 Tourists as users

The users who visit Nationalparks.fi are most likely foreign tourists. They want to take a closer view of Finland's nature and look for information about nature destinations in Finland. With this aim in mind, they will most probably find Nationalparks.fi. Therefore the concept of tourism is discussed here in the context of the online world.

Tourism, whose synonym is travel(ling), is a multidimensional and complex activity that touches many different economic operations and many lives (Cooper, Fletcher, Fyall, Gilbert & Wanhill 2008: 11). In the case of Nationalparks.fi, the concept of online travel is relevant. According to Cooper et al. (2008: 685; my emphasis), online travel is *the acquisition of information* and the purchase of travel-related services from businesses selling on the internet. Nationalparks.fi truly offers an opportunity to travel online; including planning the trip by skimming and scrolling the site and acquiring information on different destinations, bookable huts, hiking in Finland, and so on.

Tourists look for tourism-related information online from personal blogs, public websites, company websites and social media websites. Public websites are maintained by a local or a national government's tourism-related department. (No & Kim 2015: 564–566.) Nationalparks.fi represents a public website that offers information on where to go, where to stay, and where to eat, for example. Interestingly, Nationalparks.fi combines a public website and social media websites. Many of the destinations of Nationalparks.fi (mainly national parks) have their own social media accounts varying from Facebook to

Instagram, of which some are even available in English. The social media accounts offer more up-to-date information whereas the website has more stable and profound information.

The above-presented online tourism information sources share five different attributes: accessibility, security, information–trust, interaction, and personalisation. The emphasis on different attributes depends on the information source. In the case of public websites, the most visible attributes are security, information-trust and accessibility. Security of a public website generates from a fact that the users often regard public websites more secure than the websites of private enterprises in terms of personal information protection. Users also seem to trust the information presented on public websites. Accessibility refers to how easy the tourism information source is to find and use. (No & Kim 2015: 573.)

Even though the above-presented three attributes are positively visible in tourism-related public websites, there seems to be place for improvement. From the users' point of view, public websites do not necessarily offer tailored and appropriate information for them. Therefore public websites should organize the information more clearly and more concretely to meet the needs of the users. (No & Kim 2015: 573.) In the case of Nationalparks.fi, this would seem to be an important factor when the vast amount of information on the website is taken into account.

As regards information of different destinations, it might be a good idea to offer the information to the tourist as a do-it-yourself (DIY) kit, rather than a completed product. This way the tourist can decide where to go, what to see, what to do, and in that way start to create his or her own experience. (Swarbrooke & Horner 1999: 161.) This idea of destinations as a DIY-kit in a tourist office can be broadened to websites and more specifically, to Nationalparks.fi. At the time of this study, Nationalparks.fi provides information about 200 nature destinations in Finland (Metsähallitus, Luontopalvelut 2018). It seems that Nationalparks.fi utilises this DIY-kit idea, as the website has all kinds of information that the user might need to plan his trip to some of the nature destinations available.

Tourists also rate their experience, either personally in their own head or by rating the experience online, for example. Cooper et al. (2008: 687) define tourist satisfaction as a rating that the tourist give to their experience during their holiday. In the case of Nationalparks.fi, the users form an opinion of the website during their first visit. While hotels care for the tourists' experience at their hotel, website administrators' concern is the users' contentment with their website. However, website satisfaction does not affect the user's intention to travel to the destination (No & Kim 2015: 567). Still, the users' needs and desires must be taken into account to make sure that they will return to the website in the future.

## 2.2 User experience

When users use products, websites or services, user experience is a central concept. Users are not robots and they feel different things from irritation to satisfaction while using a website, for example. According to Don Norman and Jakob Nielsen (2017), user experience comprehends all aspects of end-user's interaction with the company, its products and services. Similarly, in the case of the internet, the interaction always starts and ends with the user. This means that the function of the internet has shifted from website-centric to user-centric. (Roden 2010: 2.)

However, user experience should be distinguished from usability. Usability is a quality attribute of an interface. That means whether the interface (or product, service etc.) is easy and efficient to use, memorable, satisfactory and how easy it is to recover from errors. User experience is much broader concept than that of usability. (Norman & Nielsen 2017.) That is reasonable, since the users are different individuals who experience the services, products or websites differently.

Suojanen et al. (2015: 25–26) also state that the concept of user experience is more extensive than that of usability. They also note that especially the product-oriented definitions of usability do not serve as a definition for user experience, since the product-oriented definitions are concerned merely with the product's features such as learnability,

aesthetics, and usability. User's experience goes beyond the product's features. (Suojanen et al. 2015: 25–26.)

However, user experience is related to the definitions of usability. Usability can be defined as a user's subjective experience on the product's ease of use. If this is the definition, it is not enough to state the usability problems of the product. Information about the actual user experience is also needed. User experience can be evaluated by different questionnaires, for example. (Ovaska, Aula & Majaranta 2005: 4.) On the other hand, user experience can be seen as a rather individualistic construct, if it is concentrated on excessively (Battarbee & Koskinen 2005: 7).

In the light of the above-presented note of Ovaska et al. (2005: 4), this thesis does not provide enough information on user experience. However, this thesis provides an overall picture of the usability of Nationalparks.fi and, after all, studying user experience with questionnaire or usability testing with the real users is not in the scope of this master's thesis. However, user experience is acknowledged as an existent background concept. Moreover, when I conduct the heuristic evaluations independently, I think like a user. In other words, I am able to see whether some situations create a negative user experience. Therefore the concept of user experience is implemented to some extent in this thesis.

From the point of view of user-centered translation, which is the second theoretical viewpoint of this thesis, translators participate in creating user experience. In other words, translators are indeed the user's representatives, and as members of design teams, translators can help to create a full user experience (Suojanen et al. 2015: 13). Therefore it is meaningful to examine the translations and English language as a whole in Nationalparks.fi.

### 2.3 Credibility of websites

When considering credibility of a website, people tend to pay attention to the design of the website. The design concerns the layout, the colours and the professional look of a

website, for example. Professional looking websites tend to have higher credibility level than those that are less professional looking. This might seem rather superficial but if the user does not have deep motivation to familiarise herself/himself with the website, the perceived credibility is based on the design. (Fogg, Soohoo, Danielson, Marable, Standford & Trauber 2003.) Therefore it could be said that Fogg et al.'s (2003) observation support the argument that first impressions count – at least in the case of website credibility.

The above-mentioned notion of website design comes close to Mark A. Dochterman and Glen H. Stamp's (2010: 40–41) factors of page layout and professionalism. The users tend to evaluate these factors when determining the credibility level of a website. Page layout refers to the ease of navigation, the length of the page and the overall appearance of the website. If a website has a poor layout, it is going to decrease the credibility of the site. The factor of professionalism deals with the proficiency or expertise in the design of the website. In other words, if the users think that the website design would be easily created by themselves or perceived others, the website does not seem very credible. (Dochterman & Stamp 2010: 40–41.)

In addition to the professional design and the functional layout, information structure and information focus are influential when considering credibility of a website. Information structure concerns the coherence of information and ease of navigation. The easier the website is to navigate, the better the level of credibility. Information focus is rather two-sided: from the user's point of view, vast amount of information or more focused information can either decrease the credibility or have no effect. (Fogg et al. 2003: 6.) Vast amount of information might irritate the users and make them feel like the valuable and relevant information is lost. On the other hand, too scarce information does not create a credible image of the website.

Moreover, cross-checkability and content are also factors that the user recognises when determining credibility of a website. Cross-checkability refers to cross-reference, or in other words, to whether the website has links to similar information on other websites and whether other sites refer to the website in question. Through the content the user makes

credibility judgements based on language level and spelling errors, for example. In addition, if a website is heavily based on text, the user is going to concentrate text related issues when deciding on the credibility. (Dochterman & Stamp 2010: 40–41.)

The credibility level of a website also depends on the engagement level of the user: whether the user is casually surfing the internet or searching for health-related information, for example (Fogg et al. 2003: 12). Casually surfing users are not very interested in or bothered about credibility. In the case of Nationalparks.fi, the users most probably search for information, both with intention and casually. However, there might be some intention for a future trip to some destination, even when the user is surfing through the site quite casually.

The point of this section was to introduce concepts that are relevant when considering credibility of a website. Some of the concepts are intertwined and share the same elements, such as page layout (Dochterman & Stamp 2010: 40–41) and information structure (Fogg et al. 2003: 13). In addition, many of the introduced concepts can also be seen to exceed the idea of credibility and could also be considered when creating a usable website.



### 3 USABILITY AND ITS RESEARCH

Usability is a multifaceted concept that has as many definitions as there are definers. In addition to the concept itself, the discipline has many names and I will shortly go through them to avoid any misunderstandings. At the beginning, the discipline was known as *Usability engineering* and much of it derives from Jakob Nielsen's work (see Nielsen 1993). Nowadays the discipline is also referred as *Usability research*, which widens the field from engineering to other user-centered research and development of the research methods. The newest version of the name is *User experience research*. (Suojanen et al. 2015: 13.) In this thesis, the discipline of usability is referred to as usability research since it is the most neutral of the three.

In this chapter, the main theoretical concepts of this study are discussed. The concept of usability is covered in section 3.1, and section 3.2 introduces user-centered translation (UCT). The different methods for assessing usability are discussed in section 3.3 from the perspectives of both usability research and UCT. The methods relevant to this study, that is the heuristic evaluation and the list of heuristics, will be presented in depth in subsections 3.3.1 and 3.3.2. Severity ratings for the usability problems and a definition of a usability problem are discussed in section 3.4.

#### 3.1 The concept of usability

Historically, usability is a concept that has its roots in Human-Computer Interaction (HCI). In HCI, the human is not really seen as an active party in the interaction between a human and a device. Usability on the other hand takes into account this side of the interaction, and thus the user is seen as an active party. Consequently, usability can be seen as a field of methodology through which the cooperation between the user and the device is improved. The cooperation should be pleasant and effective from the point of view of the user. (Sinkkonen, Kuoppala, Parkkinen & Vastamäki 2006: 17–18.)

A definition of usability that is often referred to is Nielsen's (2012; 1993: 24–25) definition. According to him, usability is defined by a combination of five quality components: learnability, efficiency, memorability, errors and satisfaction. Learnability relates to how easy is it for the user to use the design for the first time. Efficiency refers to the rapidity of completing tasks with the familiar design. Memorability relates to how easy is it to regain proficiency in using the design after a period of not using it. The component of errors refers to ease of recovery from errors. Satisfaction is about how pleasant it is to use the design. In summary, usability is in essence about the ease of use, or in other words, how easy and pleasant it is to use the product. (Nielsen 2012; 1993: 24–25.)

However, according to Nielsen's (2012) views, usability does not exist on its own. On the other side of usability is utility. Utility relates to functionality, or in other words, whether the product provides the functions that the user needs. When utility and usability are combined, it creates a usable product. (Nielsen 2012.) For example, if a calculator has all the mathematic formulas the user needs to pass a mathematics exam (utility), but the user does not to find them from the calculator (usability), the calculator is not a usable product.

Other popular definition is the ISO 9241–11 standard (1998: 6) which defines usability through the user's achievement of goals, or in other words, how well does the user achieve his or her goals profitably, efficiently and with satisfaction. In this definition, the user, his or her goals and the context of use are seen specified. (ISO 9241–11 1998: 6.) Wille Kuutti's (2003: 13) definition also has a specified element to it, as he defines usability on the basis of how easily the user can utilise the product and its functions to achieve his/her goals. Thus, the user's goals and the user are seen as specified.

Sinkkonen et al. (2006: 15–27) argue that the most popular definitions of usability (Nielsen and the ISO standard) do not really tell anything about good usability. The definitions do include the different components of usability and describe what a product with good usability is like. What the definitions lack is the user. (Sinkkonen et al. 2006: 15–27.) On the other hand, as Suojanen et al. (2015: 14) conclude from the point of view

of UCT that usability is ultimately about the user's relative experience of the success of use. It seems that it is rather difficult to embed the concept of a user pragmatically into the definitions of usability. However, the definitions are user-centered and have the concept of a user as an underlying idea.

Usability is an adaptable concept, and in addition to interface or product designs it can be applied to texts, for example. Suojanen et al. (2015: 49–59) have defined textual elements of usability: legibility, readability, comprehensibility and accessibility. These elements are fundamental when defining the usability of texts. In addition, readers can be considered users as well. Besides texts, usability can be and is extended to services. (Suojanen et al. 2015: 49–59.) In fact, almost any human activity can be examined from the viewpoint of usability (Suojanen et al. 2015: 14). This is an improvement in relation to the times of HCI, when the user was not part of the equation.

Usability does not occur in a vacuum, because it is user- and context-dependent. The context of use consists of the qualities of the user and the task at hand, the device and the surroundings. It depends on the user's abilities, desire and motivation whether s/he considers the product usable. Also the surroundings, or in other words, the context of use affect the use. (Suojanen, Koskinen & Tuominen 2012: 19.) For example, if the user uses for a first time a smartphone outside in freezing temperatures, the numbness of his/her fingers might affect his/her experience of the device's usability. User and context dependent nature of usability leads to the fundamental principle of usability: know the user (Ovaska et al. 2005: 4).

Nielsen (2000: 10) argues that the role of usability has become more important in web economy. If that was the situation in 2000, it is easy to predict how the state of affairs is now, in 2018. Most likely, the importance of usability has at least not decreased. Usability is in demand since users know what they want and like, and what they do not want and like. Moreover, websites have existed for a quite a long time already, so users have expectations on how websites should function and look.

Taking into consideration all the above discussion, the definition of usability in this thesis is adapted mainly from Suojanen et al. (2015: 14): *usability is user's relative experience of the success, ease and pleasantness of the use*. This definition correlates with the definition of a usability problem that is used in this thesis: a usability problem is a set of negative phenomena, and a usability problem creates a negative user experience (see section 3.4 for a more detailed definition). Thus, as an expert evaluator, I examine whether some parts of the website cause a negative user experience. This might sound somewhat subjective, but the research stays objective due to the specific method and the list of heuristics.

### 3.2 User-centered translation

User-centered translation (UCT) is quite a recent theory in the field of translation studies. It was created by Tytti Suojanen, Kaisa Koskinen and Tiina Tuominen in 2012 to update translator training and offer students new practical perspectives to translation. User-centered translation emphasises the reader, or the user, in the translation process. (Suojanen et al. 2012: 1.) As a concept UCT can be defined as follows: “In user-centered translation, information about users is gathered iteratively throughout the process and through different methods, and this information is used to create a usable translation” (Suojanen et al. 2015: 4). Furthermore, user-centered translation is not about philosophical reasoning but rather about practical methods (Suojanen et al. 2012: 9). In other words, UCT provides practical tools for taking the reader into account in translations. The tools of UCT are discussed in section 3.3.

The concept of UCT was not developed in a vacuum but in relation to other fields of research, namely usability research. Even the name user-centered research is parallel to that of user-centered design which derives from the field of usability research. From a more historical point of view, the idea of user-centeredness was introduced in translation studies via technical communication. Technical communicators produce technical documentation, such as instructions for devices, interfaces or systems. User-centered technical documentation is crucial because it makes the device or interface usable for the

user. In addition, technical communicators are often trained as translators, thus they produce texts that are often translated. (Suojanen et al 2015: 3.)

### 3.3 How to assess usability

In this thesis, the usability of Nationalparks.fi is assessed from two combined perspectives: usability research and user-centered translation UCT. This section clarifies the methods of usability research and UCT for assessing usability. In the following two subsections, the method chosen for this thesis will be presented more in depth. Subsection 3.3.1 covers the heuristic evaluation, while subsection 3.3.2 considers the list of heuristics generally and presents the list of heuristic created specifically for this thesis.

In usability research, the ways to assess usability are called usability engineering methods whereas UCT has tools, which help to create more user-friendly translations (see Ovaska et al. 2005: 5–9; Suojanen et al. 2015: 61–123). UCT tools and usability engineering methods are intertwined and therefore they can be easily combined as in this thesis. The main point in both is to create and recreate usable and user-friendly products, translations, interfaces and so on. Better usability is the motivating force both in usability research and UCT, and thus user-centeredness becomes the bridge between usability research and translation studies.

Usability research's usability engineering methods cover the planning, modelling and assessment of a product. Planning, modelling and assessment methods are the main categories of usability engineering methods. The assessment methods are divided further into inspection methods and usability testing methods (sometimes referred to as user testing). The difference between these two is the fact that only usability testing methods include the actual user in the assessment. (Ovaska et al. 2005: 5–6.)

Heuristic evaluation, or the method chosen for this thesis represents a usability inspection method. Other example of this type of method is cognitive walkthrough. Both heuristic evaluation and cognitive walkthrough represent expert evaluation methods, in which the

real users do not participate in the evaluation session. Expert evaluation methods are easy to learn and they do not require extensive preparations. Moreover, expert evaluation methods can be utilised at any stage of product or interface development. (Ovaska et al. 2005: 8; Korvenranta 2005: 111–112.)

In usability testing, the real users are observed while they use the product and perform certain tasks which represent real context of use. Usability testing requires more planning and resources than expert evaluation methods but on the other hand, it provides information on the usability from a real user's point of view. Usability testing is a method itself but for example pluralistic cognitive walkthrough and contextual inquiry also represent specific types of usability testing methods. Usability testing can be accompanied by eye-tracking and thinking aloud methods, for example. Questionnaires and interviews are also possible. (Koskinen 2005: 187; Ovaska et al. 2005: 8.)

UCT has tools that can be utilised even before the translation process begins. These tools are called mental models and the models include *personas*, *audience design* and *intratextual reader positions*. The point of these models is to profile the user or the reader of the translation. The profiling is often the translator's own outline of the target users. It is also possible to base the profiling on collected information about the real users like in user-centered design. Audience design and intratextual reader positions are fairly known in translation studies whereas personas are initially used in usability engineering. (Suojanen et al. 2015: 61–62.)

The tools of UCT are similar to the usability assessment methods, such as usability testing in its different forms and heuristic evaluation. However, because the object of the assessment is primarily translation in UCT, the methods are applied slightly differently. For example, in UCT, heuristic evaluation employs different lists of heuristics, in other words, the heuristics concentrate on language and translation rather than on design matters. Suojanen et al. (2015: 90) have created a list of heuristics for the assessment of translations, and Nielsen (1995c) has developed a list of heuristics used in usability inspection of interfaces. In this thesis, both UCT and usability research are clearly visible

in the list of heuristics which is specifically tailored for this study. The tailored list will be presented in subsection 3.3.2.

The purpose of this section was to present examples of the different ways to assess usability. Some of the methods are rather general concepts by nature, and thus there are many ways to apply the methods to practice. In addition, there are many works that explain the methods in depth, such as Ovaska et al. (2005), Nielsen (1994), Suojanen et al. (2012; 2015) and Barnum (2002). The first two cover the topic from the point of view of usability research, the third from UCT aspect and the last from the viewpoint of technical communication. It depends on the research material, the scope and the purpose of the study which method and theoretical viewpoint are the most suitable ones.

### 3.3.1 Heuristic evaluation

Heuristic evaluation is a usability assessment method developed by Nielsen (see Nielsen 1993; 1994). During an evaluation session, a small set of evaluators examine the product by taking turns, without communicating with each other during the evaluation. Each evaluator should have about one to two hours to examine the product. If the evaluation session is longer, it is advisable to divide the session into shorter periods. Nielsen also advises that the evaluation should be conducted twice by every evaluator. Thus the evaluator can move on from the first expressions and concentrate more on the details. (Nielsen 1994: 25–62; Korvenranta 2005: 112–115.)

A small set of evaluators (3–5 evaluators) is preferred, because a single evaluator cannot identify all the usability problems. In fact, a single evaluator finds 35 % of the problems on an average. Still, a large number of evaluators does not guarantee that all of the problems are found and different evaluators find different problems. (Korvenranta 2005: 114; Nielsen 1995a.) In addition, an evaluator can detect both smaller and bigger usability problems (Nielsen 1994: 25, 56). In this thesis, the problem of a single evaluator is compensated by meticulous evaluation sessions (in some cases over 2 hours) and by the fact that Parks and Wildlife Finland conduct their own assessment of the usability of Nationalparks.fi.

The evaluation is conducted with the help of a list of heuristics, which aids the evaluators to find and classify the usability problems of the product. Heuristics are general usability principles, and Nielsen has created his own list, referred to as Nielsen's list. It is also possible to utilise other instructions, for example product-specific instructions. (Nielsen 1994: 25–62; Korvenranta 2005: 112–115.) Suojanen et al. (2015: 90) have created a specific list of heuristics for UCT, whose heuristics concern language and translation more than design, for example. The list of heuristics is discussed in general and the list of heuristics tailored for this thesis is given in the following subsection 3.3.2.

The data produced during the heuristic evaluation can be saved by the evaluator him-/herself. In other words, the evaluator writes down the problems s/he encountered and the heuristics that the problems violate. Other possibility is using a think-aloud method or dictation, where an assistant writes down the evaluator's observations. This might allow the evaluator to concentrate on the evaluation itself more profoundly. (Nielsen 1994: 25–62.) In the case of this study, I wrote short notes during the evaluation sessions and typed them up afterwards. This way I did not use too much time on writing the notes during the evaluation sessions.

Heuristic evaluation is the most informal one amongst usability inspection methods and there are no specific tasks for the evaluator to follow during the evaluation. Therefore the evaluator is allowed to examine the interface fairly freely with the help of the list of heuristics and his/her own subconscious tasks and goals. (Mack & Nielsen 1994: 5, 9.) In other words, it is up to each evaluator how they evaluate the product during the evaluation session (Korvenranta 2005: 115). In addition, the evaluators are allowed to consider relevant usability-related ideas other than the heuristics that come to mind during the evaluation (Nielsen 1995a).

The usability inspection methods function best when used at an early stage of the product development. If the heuristic evaluation is conducted too late, in other words, when the users already use the product, the role of the evaluation is minimal. Then again, if the evaluation is conducted too early, the evaluator does not have the actual product or interface to examine. (Mack & Nielsen 1994: 18.) In the light of Mack and Nielsen's



ideas, my heuristic evaluation is conducted too late since Nationalparks.fi has existed since 2004. However, it is justified and reasonable to test the existing design before updating. Thus the functional aspects of the website can be reused and the impractical ones left out. (Nielsen 2012.) Furthermore, as Parks and Wildlife Finland are proceeding with their reform project during 2018, there is a clear niche for the heuristic evaluation of this study.

Jeffries and Desurvire (1992: 39–40) point out that heuristic evaluation does not replace usability testing that is done with real users. Kuutti (2003: 69) also state that heuristic evaluation and usability testing are not competing methods nor do they replace each other. In other words, these two methods are different by nature and they discover different problems (Kuutti 2003: 69). Heuristic evaluation is a good choice of method in cases in which it is not possible or profitable to have the real users assess the product (Suojanen et al. 2012: 98). Thus, usability testing with real users requires money (Koskinen 2005: 187). In addition, heuristic evaluation is as easy, fast and cheap as the researcher wants it to be, and it is extensive considering how easy it is to learn and adapt (Nielsen 1994: 25, 56).

### 3.3.2 List of heuristics

The list of heuristics consists of heuristics that are different usability principles, rules or instructions. The heuristics are often used by designers and they tell the designer what to take into account during the design process of an interface or a product. In addition to design processes, usability heuristics can be used as a checklist in expert evaluations such as heuristic evaluation. (Korvenranta 2005: 112.) Similarly to a design process, the heuristics aid the evaluator to find the relevant points from the research subject during the evaluation session (Kahn & Prail 1994: 148).

The use of heuristics is often iterative in different contexts. Iterativity means that in the design process, the unfinished product is assessed repeatedly and shortcomings are fixed with the help of heuristics. (Suojanen et al. 2012: 99.) Usability assessment can be an iterative process as well, when heuristic evaluation is combined with usability testing. In

other words, the product's usability is first assessed with heuristics, then the problems are solved and finally the product is retested with the users. (Nielsen 1995d). UCT also encourages the use of iterative operation models in translation because iterative translation processes help to define the user for the needs of similar translation tasks (Suojanen et al. 2012: 132).

Thus, heuristics are also utilised in UCT, either for analysing finished translations or for translating text (Suojanen et al. 2015: 89). However, Suojanen et al. (2015: 89) seem to emphasise using the heuristics during the translation process itself, not when the translation is finished. This is supported by the fact that heuristics are concrete tools for translators to produce a translation that is appropriate for its user. In the case of this study, the heuristics are used to examine already existing translations, but the heuristics could also be utilised later on when translating texts for websites.

Existing lists of heuristics do not always apply to the research subject at hand. In situations like this, it is rather necessary to develop a product-specific list. (Korvenranta 2005: 121.) For the purposes of this thesis, I have tailored a specific list of heuristics. It combines features from the following lists: Anni Otava's (2013: 45), Vesa Purho's (2000), and Jenni Riippa's (2016: 116–117) lists. In addition, the list contain my own ideas what I have considered important in the case of Nationalparks.fi. The list of heuristics tailored for this thesis is a combination of usability factors and factors concerning UCT, thus there are two aspects: *General usability aspect* and *UCT aspect* (see Table 1). The heuristics are not in the order of importance, and each heuristic is explained in the table.

**Table 1.** The list of heuristic tailored for this thesis

<b>1. GENERAL USABILITY ASPECT</b>	
1.1. Navigation	Navigation in the website should be effortless and easy. If the user chooses a wrong page, s/he should be able to “undo” and “redo”, i.e. shift back and forth between the pages.
1.2. Link functionality	Links should lead to the promised, correct page/browser window. The target page/website should be in the user’s language, in English. Metatexts of the links should be correct.
1.3. Aesthetic and minimalist design	The characters, words, lines and paragraphs should be easily discernible. Other visual features such as pictures and menus should be coherent and not irritate the user. Website’s design should be inviting and smart.
1.4. Effective information design	Information should be relevant for the user. Same information should not be repeated in different places. Information must be presented clearly and it should be easily found by the user, e.g. that it is not located too deep in the website.
<b>2. UCT ASPECT</b>	
2.1. Consistency	Texts of the website should be consistent in terms of style and terminology. E.g. Either American English or British English.
2.2. Match between ST and TT	All the relevant material should be translated and omissions and additions justified. Mistranslations and/or errors should not occur.
2.3. User’s language	Translation should be done with the user’s language, i.e. English should be used and popular terms favoured over specialised ones.
2.4. Idiomatic language	The used language should be idiomatic, natural and contain no interference. Texts should be readable and comprehensible and contain no errors.

Both of the aspects in the list contain four heuristics, and thus there is a balance between the general usability aspect and the UCT aspect. Each heuristic has their own subsection in chapter 4, where the usability problems violating each heuristic are described and discussed.

### 3.4 Usability problems and their severity

Poor usability of a website or any other interface or product manifests itself in the form of usability problems. According to Mack and Nielsen (1994: 3), a usability problem can be whichever part of an interface, and changing this part in any way can improve the usability of the interface. This definition is rather vague and “changing the faulty part *in any way*” also includes the possibility of changing the part for the worse. Also Manakhov and Ivanov (2016: 3416) note that the definition should not mix problem with the recommendation of the possible solution.

Often a usability problem is not even defined (see for example Suojanen et al. 2012; 2015) but it is treated as a self-evident fact: everyone knows what a usability problem is. However, according to Manakhov and Ivanov (2016: 3146), an evaluator has to be clear what s/he considers to be a usability problem and why. In their article, they provide an improved definition of usability: “A usability problem is a set of negative phenomena, such as user's inability to reach his/her goal, inefficient interaction and/or user's dissatisfaction, caused by a combination of user interface design factors and factors of usage context.” (Manakhov & Ivanov 2016: 3146).

Manakhov and Ivanov's (2016: 3416) definition is strictly concerned with the factors of Human-Computer Interaction (HCI). They state that not all problems are in the scope of HCI and therefore are not usability problems. Since this thesis combines both usability research and UCT, I revised Manakhov and Ivanov's (2016: 3416) definition to fit the needs of this study:

A usability problem is **a set of negative phenomena** caused by a combination of factors related to website design, translation and usage context. A set of negative phenomena can be inefficient interaction with the website, user's inability to comprehend the texts on the website and/or user's dissatisfaction, for example.

I have classified the found usability problems according to the list of heuristics created for this study. However, in order to make this study as usable and practical as possible, there is a clear need to indicate the severity of the found usability problems. For this

purpose, I utilise Nielsen's (1995b) severity rating for usability problems, see Table 2 below.

**Table 2.** Nielsen's (1995b) severity rating for usability problems

<b>0</b>	I don't agree that this is a usability problem at all
<b>1</b>	<b>Cosmetic problem only:</b> need not be fixed unless extra time is available on project
<b>2</b>	<b>Minor usability problem:</b> fixing this should be given low priority
<b>3</b>	<b>Major usability problem:</b> important to fix, so should be given high priority
<b>4</b>	<b>Usability catastrophe:</b> imperative to fix this before product can be released

According to Nielsen (1995b), the severity of a usability problem is a combination of three different factors: the frequency, the impact, and the persistence. Frequency refers to how often or rarely the problem occurs. With impact Nielsen means how easy or difficult it is for the user to overcome the problem. Persistence refers to the permanence of the problem: does the problem "disappear" when the user knows about it or does it bother the user repeatedly. (Nielsen 1995b.)

The severity rating itself is divided into five different categories, as shown in Table 2 (Nielsen 1995b). In this thesis, I will only use the categories from 1 to 4. The category 0 is irrelevant, as I aim to find possible usability problems during the heuristic evaluation. It also saves space when observations that are not usability problems at all do not need to be considered.

The next chapter describes and discusses the found usability problems. Section 4.1 is dedicated to the severity ratings and summary of the found usability problems. In the section, the number of found usability problems is indicated in three different tables from different viewpoints. Section 4.2 concentrates on the general usability aspect and the heuristics that are related to the aspect. Similarly, section 4.3 covers the UCT aspect and the heuristics related to it.

## 4 OVERALL USABILITY OF NATIONALPARKS.FI

The aim of this study is to provide a good picture of the usability of the website Nationalparks.fi. The following three research questions help to achieve this aim: 1) What are the found usability problems like? 2) How severe are the found usability problems? 3) How many of the found usability problems are related to translational aspect? The material of the research consists of the following main sections of Nationalparks.fi: the front page of Nationalparks.fi, Volunteer Work, Hiking in Finland and What's New. Furthermore, from Destinations section, the following four national parks' pages are examined: Kauhaneva-Pohjankangas, Oulanka, Rokua and Valkmusa.

In this chapter, the findings of the heuristic evaluation are presented. Section 4.1 summarises and discusses the found usability problems and their severity ratings. From section 4.2 onwards, the findings are presented according to which aspect they belong to (general usability aspect or UCT aspect) and which heuristic of the aspect they violate. Each subsection, or in other words, the heuristic, presents examples of usability problems that violate that specific heuristic. Some examples have screenshots for clarification. Larger screenshots are presented in appendices to save space.

Due to space limits, all the found usability problems cannot be presented with examples in this chapter. This means that I have included the most interesting cases that are significant in forming a picture of overall usability of Nationalparks.fi. However, the total number of all the found problems is given in three different tables in section 4.1.

### 4.1 Summary of the findings

There is a total of 160 usability problems in Nationalparks.fi, as shown in Table 3 below. Interestingly, there is no difference in the amount of problems between the general usability aspect and the UCT aspects, as both have exactly 80 problems. However, differences can be detected when the columns of severity ratings are examined closer.

**Table 3.** Usability problems discovered in the research material

<b>Discovered usability problems</b>					
	<b>Discovered usability problems per severity rating</b>				
<b>Aspect</b>	<b>Cosmetic</b>	<b>Minor</b>	<b>Major</b>	<b>Catastrophic</b>	<b>Total per aspect</b>
<b>General usability aspect</b>	18	24	31	7	<b>80</b>
<b>UCT aspect</b>	33	33	14	-	<b>80</b>
<b>Total per severity rating</b>	<b>51</b>	<b>57</b>	<b>45</b>	<b>7</b>	<b>160</b>

The clearest differences between the two aspects are found at the severity ratings of catastrophic and major usability problems (see Table 3 again). Firstly, the seven catastrophic usability problems belong to the general usability aspect whereas UCT aspect has no catastrophic problems. The found seven catastrophic problems relate to links that do not work at all and do not lead anywhere. In other words, these types of links create a very negative user experience for the user. The translation and language related issues of UCT do not create such catastrophic user experiences. For the user, it is easier to recover and move on from problems regarding language and translation than from problems related to the structure and functions of the website, such as links.

Secondly, the general usability aspect has more major usability problems than UCT aspect (see Table 3 again). This explains itself by the same reason as the above-described case with the catastrophic problems. General usability aspect has more major problems that should be attended to because the problems concern the functionality of the website. On the other hand, UCT aspect has more cosmetic usability problems. For example, small writing errors and mistakes in the use of prepositions and conjunctions increase the number of problems in this case.

The large number of all the found usability problems (160 problems) might seem striking (see Table 3 again). However, during the analysis, all the found problems were counted

separately as one problem unless they occurred in the same form in the same page or between different sections. This way the true number of problems could be discovered. In addition, it must be remembered that most of the problems represent cosmetic and minor usability problems.

The next table presents the usability problems related to the general usability aspect (see Table 4). The most problems (50 problems) concern clearly the heuristics of link functionality. This is not very surprising, as Nationalparks.fi is based extensively on links and links can be found on every page. The majority of the found faulty links lead to some other website than Nationalparks.fi and thus it can be seen that it is difficult to keep track and update such external links.

**Table 4.** Usability problems related to the general usability aspect

<b>1. General usability aspect</b>					
	<b>Discovered usability problems per severity rating</b>				
<b>Heuristic</b>	<b>Cosmetic</b>	<b>Minor</b>	<b>Major</b>	<b>Catastrophic</b>	<b>Total per heuristic</b>
<b>1.1. Navigation</b>	-	-	2	-	<b>2</b>
<b>1.2. Link functionality</b>	7	17	19	7	<b>50</b>
<b>1.3. Aesthetic and minimalistic design</b>	4	1	3	-	<b>8</b>
<b>1.4. Effective information design</b>	7	6	7	-	<b>20</b>
<b>Total per severity rating</b>	<b>18</b>	<b>24</b>	<b>31</b>	<b>7</b>	<b>80</b>

The second most violated heuristic is the heuristic of effective information design with 20 problems (see Table 4 again). Nationalparks.fi has a great of information in the form of text, so problems regarding this heuristic were somewhat expected. The most problems concerning the heuristic of effective information design regard the repetition of



information. If information is repeated many times and especially on the same page, it creates a negative user experience as the user has to read the same content repeatedly.

The heuristics of navigation and aesthetic and minimalistic design do not have many usability problems compared to the heuristic of link functionality and effective information design (see Table 4 again). Navigation in Nationalparks.fi is quite simple because the navigation works in the same way in different parts of the website. Thus, the navigation structure is easy to learn after one or two visits to the website. The heuristic of aesthetic and minimalistic design share the same feature as the heuristic of navigation in the sense that the design is similar and coherent throughout the website. In other words, there are not too many things that stand negatively out in Nationalparks.fi because the site is rather coherent in design.

In the UCT aspect, most of the problems are cosmetic and minor because the errors and peculiarities in language do not really affect the use of the website (see Table 5 on the next page). Furthermore, most of the problems concern the heuristic of idiomatic language, that is, 47 problems. This is quite understandable, because non-idiomatic word choices and interference in sentence structure might be the easiest and most imperceptible errors that the translator can unconsciously make.

**Table 5.** Usability problems related to the UCT aspect

<b>2. UCT aspect</b>					
	<b>Discovered usability problems per severity rating</b>				
<b>Heuristic</b>	<b>Cosmetic</b>	<b>Minor</b>	<b>Major</b>	<b>Catastrophic</b>	<b>Total per heuristic</b>
<b>2.1. Consistency</b>	6	-	-	-	<b>6</b>
<b>2.2. Match between ST and TT</b>	2	9	-	-	<b>11</b>
<b>2.3. User's language</b>	2	7	7	-	<b>16</b>
<b>2.4. Idiomatic language</b>	23	17	7	-	<b>47</b>
<b>Total per severity rating</b>	<b>33</b>	<b>33</b>	<b>14</b>	<b>-</b>	<b>80</b>

The heuristic of user's language was violated in 16 cases (see Table 5 again). Mostly the cases concern information which is offered in the 'wrong' language, or in other words, in other languages than English, for example in Finnish or in Russian. It could be assumed that the users who decide to visit Nationalparks.fi, chose the site particularly because it is written in English and thus the user probably would not understand information in Finnish. In addition to the language, in some cases, the word choice could have been more familiar for the user whose native tongue is not English. As regards the heuristic of consistency, Nationalparks.fi is rather consistent in terms of style and terminology. Only six cosmetic problems were found to violate this heuristic.

The heuristic of match between the source text (ST) and target text (TT) has 11 usability problems (see table 5 again). The problems regard omissions of information, which can be considered to be relevant also for the foreign user. Additions were not seen as problems because they often contained information that is useful for the foreign user. However, analysing the material via this heuristic was not straightforward in every aspect. Thus, Hiking in Finland was the only section that could not be compared to the source text in every aspect because ST and TT are constructed differently in this case. Hiking in Finland

in Nationalparks.fi contains information that Parks and Wildlife Finland have thought relevant especially for the foreign use. Even though Hiking in Finland is mostly written without using any source text, no noteworthy differences between Hiking in Finland and other examined sections appeared.

The most striking and unexpected thing of the results is the exactly same amount of usability problems between the general usability aspect and the UCT aspect. A contributory factor to this might be that there are exactly four heuristics in both aspects, thus neither aspect receives more attention. However, the pages dedicated to each aspect in this thesis differ. The general usability aspect has about 16 pages of discussion, whereas the discussion on the UCT aspect is covered in about 11 pages. This difference in the number of pages is explained by the fact that the linguistic examples related to UCT aspect can be explained more shortly with the help of written examples and references to different dictionaries. As regards the general usability aspect, pictures and appendices require more explaining.

Moreover, both aspects contained one heuristic which was by chance highly represented in Nationalparks.fi. These heuristics are the heuristics of link functionality and effective information design and they were in a sense prone to have many usability problems because Nationalparks.fi has vast amount of links and information.

## 4.2 General usability aspect

The first aspect of the analysis is the general usability aspect. The heuristics that are related to general usability belong to this aspect. General usability relates to the functions, the appearance and the information design of the website, for example.

### 4.2.1 Navigation

The heuristic of navigation deals literally with navigation on the website (see Table 6 below). Navigation concerns moving around the website via different menus. In addition,

navigation refers to “redo” and “undo”, or in other words, the user should be able to return to the previous page and shift back and forth between pages by clicking the “undo” and “redo” button on the left upper corner of the browser window.

**Table 6.** The heuristic of navigation

1.1. Navigation	Navigation on the website should be effortless and easy. If the user chooses a wrong page, s/he should be able to “undo” and “redo”, i.e. shift back and forth between the pages.
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Navigation on Nationalparks.fi is quite easy and the website supports “undo” and “redo” options well in all situations, or in other words, the user can return to the previous page. Shifting back and forth works between the pages of Nationalpark.fi, but also between Nationalpark.fi and some other website (e.g. when you click an external link on Nationalparks.fi). In addition to the “undo” and “redo”, the navigation structure of the website is fairly easy, or at least the user will learn it after the first visit or a few visits to the website. However, there are two major problems concerning navigation.

The first problem occurs in all of the national parks’ front pages, and it is related to the navigation menu that is found at each park’s front page (see Picture 7 on the next page). The menu has different sections, for example: Activities, Directions and Maps, Services and so on. The menu is almost identical in all of the national parks’ pages and it is located on the left side of the page. However, on the parks’ front pages, the sections of the menu are repeated in two different places: in the middle section of the page and on the right side of the page. In Appendix 1, the front page of Oulanka National Park is presented, and the elements with repeated information are highlighted in red (the blue emphases will be discussed later). The repeated elements are enlarged in Appendix 2 for a closer inspection. In Appendix 2, the first picture has “*read more*” links which lead to the same information as the sections of the navigation menu.

Oulanka	
Activities	
Directions and Maps	
Frequently Asked Questions	
History	
Instructions and Rules	
Nature	
Services	▼
Sights	
Trails	▼
What's New	

**Picture 7.** Example of a national park's navigation menu

It might be that Parks and Wildlife Finland wanted to make sure that the user will find the information they are looking for by offering the different menu sections on multiple places. However, as Appendix 1 demonstrates, there are also plenty of other elements for the user to consider, and thus it seems rather excessive to repeat the navigation structure in so many places. The user might not realise the repetition of the navigation structure at first, and be surprised when different links and options lead to the same information. A possible solution would be to concentrate the user's attention to the navigation menu, and save space for other information on the national parks' front pages.

The second problem exceeds the extent of the research material and the heuristic evaluation, but it is counted as one because of its importance. In this problem, the navigation does not work within the website complex, or more precisely, between the different language versions. For example, if the user is reading a page of a national park in Nationalparks.fi and wants to shift to Luontoon.fi to see the same page in Finnish, the website casts the user to the front page of Luontoon.fi. The same thing occurs between every language version. This means that the user has to search the page of the national

park again in Luontoon.fi. One might argue that users do not often navigate between different language versions. That might be the case, but when users do want to shift between the language versions or accidentally click some language option, the page should stay the same.

#### 4.2.2 Link functionality

The heuristic of link functionality covers literally the functionality of the links, the language of the target website and the validity of a metatext (see Table 7). In the case of Nationalparks.fi, the language of a target website should be English, not Finnish or any other language. Metatexts are the short texts after every link that clarify where the link is going to lead, for example (www.nationalparks.fi).

**Table 7.** The heuristic of link functionality

1.2. Link functionality	Links should lead to the promised, correct page / screen view / browser window. The target page / website should be in the user's language, which is English in this case. Metatexts of the links should be correct.
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Within this heuristic of link functionality, all the found problems regarding links are counted as separate usability problems as a general rule. This way the true amount of faulty links is uncovered. However, if a same problem occurs with the same link multiple times on the same main section or between different main sections (e.g. Oulanka and Hiking in Finland), these faulty links are integrated into one usability problem.

The research material contains 50 faulty links, of which 7 represent catastrophic, 19 major, 17 minor and 7 cosmetic usability problem. A clear majority of the found problems occur in the links that lead to other websites outside Nationalparks.fi. This clearly shows how the maintenance of the external links is difficult, as the target websites may be updated. There is a great deal of outside links in Nationalparks.fi, so it would be advisable to check them more often.

Regarding links, the most unsatisfying situation for the user is when the link does not work at all, or in other words, the website is not found. In cases like this, the link does not offer anything for the user even though the user has to go through the trouble of clicking the link. In addition, it is difficult for the user to recover from this type of situation since it is not possible to go to the front page of the target website. Thus, the seven cases like this in the research material are classified as catastrophic usability problems. For example, a link *Raatamo.fi* gives the following error message (see Picture 8). The link is found at subsection Partners on Oulanka's pages. Two of the seven cases like this offer the error message in English, four in provide it in Finnish and one link leads just to a blank page.

## Not Found

The requested URL `/en/` was not found on this server.

Additionally, a 404 Not Found error was encountered while trying to use an ErrorDocument to handle the request.

### Picture 8. Error message of the link of Raatamo.fi

Even though the internal links that lead to somewhere within Nationalparks.fi tend to work well, there are four cases where these types of links do not work. The links are found at Oulanka's and Rokua's pages. The faulty links lead to an error page within Nationalparks.fi (see Picture 9). Picture 9 shows only the Finnish and English error messages but the page has the message in five other languages as well. The four cases like this are classified as major usability problems.

Error /

[Luontoon.fi](#)Error

Hakemaasi sivua ei löydy. Siirry Luontoon.fi:n [etusivulle](#).

The page you requested was not found. Go to the [Outdoors.fi home page](#)

### Picture 9. Error messages of a faulty internal link

Similarly to inactive links, there are cases where the provided link leads to the promised website, but the promised page within the website is not found. In these situations, the target website gives an error message, for example: “*page not found*”. Some of the cases has the error message in English, some in Finnish. Even though the cases with the error message in Finnish seem more serious for the foreign user, the user can fairly easily change the language to English since the language options are available in these situations. Moreover, the user is able to go to the front page of the target website. Noteworthy here is that the situation is negative for the user despite of the language of the error message because the user cannot find the intended page easily. Therefore all the cases like this are classified as major usability problems.

Picture 10 presents an example of a case where the link leads to the promised website but not to the promised page within the site. The link *Tiehallinto.fi* is the cause of this error message. The link is found at the section History on Kauhaneva-Pohjankangas pages. In this case the error message is in Finnish, and the direct translation of the error message into English is: *Page not found. The page you are looking for cannot be found. The page may have been deleted, moved or renamed. Please check for any possible typing errors in the address. Go to the front page.*



**Picture 10.** Error message of the link of *Tiehallinto.fi*

Kauhaneva-Pohjankangas’ pages has other interesting case that is worth mentioning separately. The subsection Partners has a link to *Marianluontoateriat.fi*. The link does lead to the website but the website informs the user in Finnish that the enterprise has went



out of business after 25 years. This news is rather recent since the website has been updated on the 1<sup>st</sup> of February 2018. Interestingly, Parks and Wildlife Finland has deleted this link from Nationalparks.fi during this study, so they do update some of the links.

In some cases the links do not lead to the English language version of the target website although the English version is available. These cases are counted as minor usability problems because the user can easily change the language of the website. Nonetheless, these cases are still usability problems because the websites often move from a specific page to the front page when the language is changed. It is difficult for a foreign user to find the intended page again since it was in Finnish in the first place. In addition, since the English language versions exist, it would be user-friendly to provide them from the start.

The front page of Nationalparks.fi has two above-described links. Firstly, there is a link with a picture to the website's English Instagram account called *Finnishparks* (see Picture 11). However, the link leads to the website's Finnish Instagram account called *Luontoon.fi*. Perhaps in this case the situation is even more irritating for the user as s/he cannot just click to change to the English account *Finnishparks* in Instagram but s/he would have to use Instagram's search to find the account of *Finnishparks*.

Instagram



**Picture 11.** Link that leads to Instagram account of @luontoon.fi

Secondly, the last link on the front page called *Destinations on Facebook* leads to a page in Luontoon.fi. This page has a long list of destinations (e.g. national parks) that use different channels of social media; Facebook, Twitter, Youtube, Pinterest and Instagram.

However, most of the social media accounts of the destinations seem to be in Finnish. The link does not lead to the destinations on Facebook as the user expects and does not give relevant information for the user in the right language. It is understandable that every destination does not have the resources to create and update social media accounts in English. However, the information behind this very link should be altered to fit the needs of a foreign user.

The research material has two cases in which the link does not lead to the promised website or page at all. These cases occur at Oulanka National Park's pages. At the subsection called Partners, a link *http://facebook.com/erassusi* leads to *http://basecampoulanka.fi* instead. Similarly, a link called *Our cooperation enterprises* leads to the Winter Trails section instead of Partners section. The two cases are counted as major usability problems because the link does not lead to the promised website or page and the user has to go through extra trouble to find the intended website or page.

In Nationalparks.fi, every link has a so called metatext in brackets. The metatext clarifies where the link is going to lead, or in other words, the metatext provides the internet address of the link (see Picture 12). Sometimes the metatext includes information about the target website's language, for example *in Finnish*, like in Picture 12. The link itself is often embedded in a full sentence and the metatext is given after that. Wrong metatexts do not really affect the use of the links and the user might not even notice them.

- [Heritage Landscape on the environmental administration's website](#)  
([www.ymparisto.fi](#), in Finnish)

**Picture 12.** Example of a metatext

The cases where the metatext has the wrong internet address are counted as cosmetic usability problems. For example, Oulanka's and Valkmusa's pages and Hiking in Finland have a link with a metatext *Journey.fi* instead of the correct *Liikennevirasto.fi*. Nevertheless, metatexts should be checked in order to create up-to-date and trustworthy image of the website. Other possibility is to eliminate the metatexts entirely. In addition,

Parks and Wildlife Finland might want to take notice of the coherence of the metatexts. Some metatext has *www* or *http://* and some has not. This is not counted as a usability problem, as it is rather trivial.

Metatext can also create minor usability problems. This is the case when the link either does not have the metatext *in Finnish* when needed or has it unnecessarily. The cases without the metatext *in Finnish* in the research material mislead the users. When the user clicks the link, s/he is going to be negatively surprised that the target website does not offer information in English. On the other hand, in the cases with the unnecessary metatext *in Finnish*, the user might not even click the link due the misleading metatext.

#### 4.2.3 Aesthetic and minimalist design

The heuristic of aesthetic and minimalist design concerns the exterior features of Nationalparks.fi (see Table 8). In other words, the website should be pleasing in appearance and no elements should attract negative attention. Eight usability problems were found concerning this heuristic. Three of the problems are major, one minor and four cosmetic usability problems.

**Table 8.** The heuristic of aesthetic and minimalist design

1.3. Aesthetic and minimalist design	The characters, words, lines and paragraphs should be easily discernible. Other visual features such as pictures and menus should be coherent and not irritate the user. Website's design should be inviting and smart.
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Long body texts with inadequate spacing do not entice the user to read the text. The relevant information is buried deep in the text and it is hard to glance through the text. Nationalparks.fi has a great deal of text and many of the texts are quite long and descriptive. One example of a rather long and unattractive text is presented in Picture 13. The picture only includes the last few points of a list that describes different matters concerning campfires. The text does not invite the user to read it and thus it is classified as a major usability problem. The text is found at section Campfires on Hiking in Finland.

- Lighting fires is forbidden in many nature reserves, or it has been restricted in the protected area's charter. If a protected, wilderness or other type of area is subject to a management and utilisation plan and/or regulations, visitors must observe the entries made in these documents concerning the lighting of fires: in most parts of the country, fires may only be lit at designated campfire sites using the firewood available on site for the purpose. However, in the management and utilisation plans for the large protected and wilderness areas of Northern Finland, the right to light fires has been defined more freely; in wilderness areas, for example, it is largely allowed to use dry branches, twigs and small stumps as kindling.
  - Outside the mentioned protected and wilderness areas, fires must primarily be lit at the maintained campfire sites, if one is available within five hundred metres. For Lapland, Northern Ostrobothnia, Kainuu and Northern Karelia, Metsähallitus has issued a decision outlining that when a maintained campfire site is not available, fires may be lit using dry branches, twigs and small stumps; south of these regions, however, lighting a fire requires special permission from Metsähallitus.
  - Information about campfires at each nature site's "instructions and rules" -section.

**Picture 13.** Long and dense text

Other factor that does not necessarily invite the user to read the text is the names of animal species in Latin. In Nationalparks.fi, the names of animal species are always given in Latin in brackets. In most cases the Latin names do not interrupt reading because there are only a few of them, but in this case the whole chapter is composed of birds' specific names and their Latin names (see Picture 14). This case is classified as one major usability problem because it creates a negative reading experience for the user. Such a long list of birds does not really give anything to the user if the user does not know the bird species. Therefore, fewer bird species would create more legible paragraph or furthermore, pictures of the birds would be help the user. The text is found at section Nature on Kauhaneva-Pohjankangas' pages.

## Birds in the Puddles

On Kauhaneva Mire you can see for example Common Crane (*Grus grus*) and Whooper Swan (*Cygnus cygnus*), which bring up their young near the puddles. Walking on the mire, you can also observe the life of Herring Gulls (*Larus argentatus*), Little Gulls (*Larus minutus*), Yellow Wagtails (*Motacilla flava*) and European Golden Plovers (*Pluvialis apricaria*). Other bird species of the National Park include Whimbrel (*Numenius phaeopus*), Wood Sandpiper (*Tringa glareola*), Common Redshank (*Tringa totanus*) and Common Greenshank (*Tringa nebularia*). Also Black-throated Diver (*Gavia arctica*) and Red-throated Diver (*Gavia stellata*) have their home there.

**Picture 14.** Too many Latin names in a text

One could argue that the main area of a webpage is the middle section, where the main information is. Therefore the user's attention should be directed to the middle area of the page. This does not always happen in Nationalparks.fi, which is packed with information both on the middle of the page and the sides. An example of this is found on the front pages of the national parks. The main information is provided in the middle of the page, but the user has to scroll down to see the links on the both sides of the page (see Appendix 1, the blue squares). Even though it is not possible to read the links from the appendix, it is noteworthy that these links do not concern the national park in question, but other destination categories and nearby destinations.

Thus, the user's attention is drawn away from the national park in question and there is lot for the user to consider. This type of page layout with lists of links on the sides of the page recurs throughout the website. Parks and Wildlife Finland might want to consider what is relevant for the user on each page. At this stage it seems that Parks and Wildlife Finland want make sure that the user will find all the possibly relevant information by using a great deal of links. By cutting down the amount of links would definitely make the design more aesthetic and minimalistic. This problem with the full front pages of national parks is counted as one minor usability problem.

Examples of cosmetic problems regarding the heuristic of aesthetic and minimalistic design are found at the front page of Nationalparks.fi and they concern incoherent visual features. The front page contains different font styles (see Picture 15). In addition, the

three pictures on the bottom of the page have blue frames, which remind the user of the style of websites around 1990 and the beginning of the 2000s (see Picture 16).



**Picture 15.** Different font styles on the front page **Picture 16.** Outdated blue frames

These problems are rather trivial and thus considered cosmetic problems. These types of problems do not affect the use of the website. In addition, these cosmetic problems are open to interpretation. For example, the different font styles might help to emphasise different things on the page. However, if the target would be to create a unified and aesthetic website design, these small things could be potentially considered.

#### 4.2.4 Effective information design

The heuristic of effective information design relates to presentation of information in Nationalparks.fi (see Table 9). The key ideas regarding this heuristic are clarity, relevance and location of information on the website. Moreover, it is important that the same information is not repeated in different places. A total of 22 usability problems violate this heuristic, of which 7 are major, 6 minor and 7 cosmetic.

**Table 9.** The heuristic of effective information design

1.4. Effective information design	Information should be relevant for the user. Same information should not be repeated in different places. Information must be presented clearly and it should be easily found by the user, e.g. that it is not located too deep in the website.
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Repetition of information leads to increased scrolling through the page and forces the user to read same content again, and thus it can create a negative user experience. If the repetition is reduced, it would also affect positively the aesthetic and minimalist design of the website. Nationalparks.fi seems to emphasise the importance of information by repeating it in some cases.

Repetition can occur within one page, in other words, the same content is repeated in different parts of the page. The content can be links, like in Pictures 17 and 18. The links named *More information on how to act in an emergency* and *Safety* in Picture 17 and the link named *Detailed instructions* in Picture 18 lead to exactly the same safety information on Hiking in Finland. Irritating for the user in this case is that the seemingly different links do not provide any additional information. Thus, this is classified as one minor usability problem because it does not really affect the use of the website but it is irritating for the user.

- [If you face an emergency on your hike, e.g. get lost, get injured or observe wildfire, call 112 and report an emergency. \*More information on how to act in an emergency.\*](#)
- [Make sure you pack a first-aid kit.](#)
- [Hiking in Finland](#)
  - [What to Take](#)
  - [Safety](#)

**Picture 17.** Repetition of links leading to Safety section in Hiking in Finland

## Emergency number

**112**

In case of an emergency along the way, for example if you get lost or injured or see a forest fire, dial 112. [Detailed instructions.](#)

**Picture 18.** Another link leading to Safety section in Hiking in Finland

The links depicted in Pictures 17 and 18 are found at each national parks' pages on the section named Instruction and rules. As the section in question has sometimes a great deal of text, the safety links are somewhat lost in the long body text. A possible solution here

would be to cut down the number of safety links and concentrate the user's attention clearly on some specific link, since the repetition does not necessarily make the information more available and visible for the user.

In addition to links, the repetition within the page can also occur in the form of sentences or paragraphs. For example, on Rokua's pages the content of a sentence is repeated to the letter. Picture 19 demonstrates how two sentences regarding peak seasons and mosquitoes are repeated exactly in the same way under different headings on section Instructions and Rules. This case is classified as one major usability problem because the user needs to read exactly the same content twice.

## Preparations

- The most popular time to visit the National Park is during the schools' skiing holidays in February-March.
- In the summertime there are usually less mosquitoes in the dry forests of Rokua than in most other places in Finland, but especially in the forests around the lakes it is sensible to use insect repellent.

## Peak Seasons and Mosquitoes

- The most popular time to visit the National Park is during the schools' skiing holidays in February-March.
- In the summertime there are usually less mosquitoes in the dry forests of Rokua than in most other places in Finland, but especially in the forests around the lakes it is sensible to use insect repellent.

**Picture 19.** Repetition of content on Rokua's pages

Repetition of information can also occur between entities larger than a page, that is, between the different sections of the navigation menu. There is one such problem in Hiking in Finland section. Hiking in Finland's navigation menu has two sections that have similar information with their subsections. These main sections are *Health and Well-being* and *Rights and Regulations*. Health and Well-being has similar information to its subsections *Open Air Exercise* and *Stress Management*. In Rights and Regulations, subsections called *Campfires* and *Litter* overlap with their subsections (*How to Light a Campfire*, *Campfires Outside Designated Sites* etc.). Appendix 3 represents the navigation menu of Hiking in Finland when all the drop-down lists are opened.



In the overlapping sections given above, the wording might vary, but the idea is basically the same. On the whole, the navigation menu of Hiking in Finland with all the subsections of subsections creates a very complicated and heavy information structure (see Appendix 3 again). Thus, the problem of overlapping sections in Hiking in Finland is classified as one major usability problem. The number of subsections and their subsections could be reduced by condensing the information and thus by eliminating the repetition.

In some cases the information is not presented clearly. An example of a major problem with confusing information is found at Kauhaneva-Pohjankangas' pages, on the section Activities. The section has the following sentence with a link (underlined): *Please remember that parts of the park are closed to the public during the bird breeding season from 1 April to 15 September.* The link leads to Directions and Maps section, but not directly to the information that is needed. The user is left confused, and it takes a while before realising that the needed information is located in the map which is located further down on the page (see Picture 20). The prohibited area is coloured with light orange. The information should be presented more clearly in this case, perhaps by leading the link directly to the map and mentioning in the original sentence that “see the map”.



**Picture 20.** Prohibited area shown in a map

An example of a minor problem, where the information is not presented clearly, is found on the front page (see Picture 21). The function of the two maps is different: the website's own *Map Search* helps to find destinations and *Excursionmap.fi* provides inter alia maps of the destinations that can be used in the terrain. However, this distinction is not clear for the user before clicking the links. Possible solution would be to name the map services more distinctively. *Map Search* could be *Destination Search* since the function of the search is to look for destinations, not maps. This problem is classified as a minor one, because the user realises the difference quickly by clicking the options.



**Picture 21.** Two different map options on the front page

Irrelevant information also violates the heuristic of effective information design. Irrelevance of information can manifest itself in the form of outdated information. In other words, the information is not connected with the present. An example of outdated information is found at History section both on Oulanka's and Rokua's pages, where the following heading appears: *National Park Turned 50*. However, according to the History sections, both of the national parks were established in 1956, thus the parks turned 62 in 2018. In addition, updates about Kvarken Archipelago's nomination for a world heritage site in 2006 have not been made. For example, Hiking in Finland has a following sentence in Geology section: “[...] *the Kvarken Archipelago has been proposed as world natural heritage site*”.

Lastly, What's New section contains information that could be considered irrelevant for the user. The information is located behind the navigation menu's section named *New on These Pages*. I expected that there would be a news archive but instead there is a rather long list of information of what has been added to the website during 2016 and 2017, for

example pages of open wilderness huts, trail descriptions and so on. It seems rather unlikely that a foreign user would visit the website so often that s/he would need information of what has been added last. More likely, the administrators of the website would benefit from this type of information. In addition, the problem with this type of listing is that what is considered new. At the time of writing this thesis, the oldest addition was dated over two years back, 16<sup>th</sup> of February 2016. This is classified as minor usability problem.

### 4.3 UCT aspect

The second aspect of the analysis is the user-centered translation aspect. The heuristics that belong to this aspect relate to language and translation.

#### 4.3.1 Consistency

The heuristic of consistency relate to coherence of style, terminology and language (see Table 10). Style refers to the stylistic choices, for example whether a text is written in a colloquial or formal style. The cases that violate this heuristic are in some way incoherent with the rest of the website. In total, the research material has six usability problems that violate this heuristic, and they all are counted as cosmetic ones.

**Table 10.** The heuristic of consistency

2.1. Consistency	The texts of the website should be consistent in terms of style and terminology, e.g. either American English or British English.
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Abbreviations save space and thus can help to communicate in a condensed way. Half-cardinal points are abbreviated in Hiking in Finland's subsections Insect Pests, Finnish Lapland and Most Popular National Parks. Picture 22 demonstrates problematic abbreviation of a half-cardinal point. Even though the abbreviations of half-cardinal points are correct, the user does not realise immediately what the abbreviations stand for.

In addition, the half-cardinal points are set out in writing elsewhere on the website, and thus the abbreviations violate the heuristic of consistency.

The indigenous status of Finland's 7,000 Sámi, who mostly live in northernmost Finnish Lapland, is recognised in Finland's Constitution. There are about 75,000 Sámi in all, spread across arctic regions of Norway, Sweden, Finland and NW Russia.

**Picture 22.** Problematic abbreviation

One of the found six problems concerns the consistency of the terms that are used on Nationalparks.fi. On the front page of Hiking in Finland, the term *liberal laws of public access* is used. According to different dictionaries used in this thesis (MOT 2018; TEPA 2018; IATE 2018), the correct term would be either *right of public access* or *everyman's right*. Elsewhere in the website the term *everyman's right* is used, so there is a slight incoherence. However, a user would probably not notice and the incoherent term is understandable, so this problem is classified as a cosmetic one.

Nationalparks.fi is written in a clear way, and the language is formal rather than very colloquial. However, there is one sentence in which the language is overly formal. The sentence is found at the pages of the national parks of Kauhaneva-Pohjankangas, Rokua and Valkmusa (see example 1).

- (1) **Measures should be taken in advance** to avoid taking unnecessary waste into the area.

Avoid taking any unnecessary waste such as plastic packages into the area.

In example 1, the overly formal sentence is presented first with the stylistically divergent phrase written in bold. The second sentence offers a possible solution for the case. The solution is to omit the overly formal part and add an example of what can be considered unnecessary waste. This information is enough for the user because all the pages with the sentence in question have a link to waste management details.

The only problem concerning section Volunteer Work in the entire study is a small stylistic error found in the body text: the use of *thru* instead of *through*. According to Oxford Advanced Learner's Dictionary (2005), the used form of the preposition is informal and presents American English. Another example concerning the difference between American English and British English is found at Oulanka's front page. The term plowing (American English) is used instead of ploughing (British English).

#### 4.3.2 Match between ST and TT

The heuristic of match between source text (ST) and target text (TT) relates to the differences between the texts in Luontoon.fi (ST) and Nationalparks.fi (TT) (see Table 11). Differences can be omissions and additions of content in the target text. In addition, the translations in Nationalparks.fi should be correct in relation to the ST, in other words, no information should be mistranslated or have erroneous facts.

**Table 11.** The heuristic of match between ST and TT

2.2. Match between ST and TT	All the relevant material should be translated and omissions and additions justified. Mistranslations and/or errors should not occur.
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The research material has 11 usability problems concerning this heuristic, of which 9 are minor and 2 cosmetic problems. The problems are mainly omissions of information because additions did not cause negative user experiences. Omissions probably would not cause a negative user experience with a real user, but from the expert evaluator's point of view, some of the omitted contents of ST contain information which would be relevant and useful for a real user.

In other words, the omissions have omitted information that the foreign users possibly need to know. For example, Kauhaneva-Pohjankangas' pages do not let the user know the winter condition of the park's roads or that the visitors need to bring their own toilet paper. Oulanka's pages lack the addresses for the trails' starting points and information about Karhunkierros Visitor Centre. Similarly, Rokua's pages do not give the user

information about cross-country cycling or trails suitable for it. The examples above are classified as minor usability problems because if the Finnish user needs that type of information, surely the foreign user needs it as well. In addition, foreign users might not be very accustomed to the rules of hiking in Finland and thus might not realise to bring their own toilet paper, for example.

Omissions can also regard an omission of a link function. In other words, the information is transferred to the ST, but the link function is left out. Picture 23 demonstrates this type of situation, where the website address is mentioned in the metatext, but there is no direct link to the target website. This situation is irritating for the user because s/he would need to copy the address to the browser window's address line in order to reach the target website. Thus, this case is classified as minor usability problem. The case of [Julkaisut.metsa.fi](http://julkaisut.metsa.fi) is especially inconvenient because the website contains a vast amount of different publications by Metsähallitus and the user would have to look for the right publication.

**Further information on the canoeing routes, the services and water safety is available in the Canoeing Guide on the River Oulankajoki ([julkaisut.metsa.fi](http://julkaisut.metsa.fi)). It is sold at the visitor centres.**

**Picture 23.** Omission of a link

Lastly, one a rather humorous cosmetic problem regarding the heuristic of match between ST and TT is found at Valkmusa's pages (see example 2). In example 2, the target sentence in English is given first and then the Finnish source sentence. The points of importance are highlighted.

- (2) Kananiemensuo Mire has retained its wilderness-like atmosphere. It is a mix of many different mire types, which blend to form an impressive whole. Clearly visible in the **mess** are two raised bogs and one aapa bog. (Nationalparks.fi 2018.)

Erämaisena luonteensa säilyttänyt Kananiemensuo koostuu monista erilaisista suotyypeistä, jotka muodostavat edustavan

kokonaisuuden. **Kokonaisuudesta** voi erottaa muun muassa kaksi keidasta ja yhden aapasuon. (Luontoon.fi 2018.)

In the Finnish source sentence, the highlighted word refers to a *whole* or *entity*. The used word *mess* in the English sentence has a humorous ring to it because it seems to refer to a *chaos* or *muddle*. However, according to Oxford Advanced Learner's Dictionary (2005), *mess* can refer to *a lot of something*, but in this case the meaning does not really apply. The difference between source text and target text seem to be a due to the translator's error.

#### 4.3.3 User's language

In the case of Nationalparks.fi, the heuristic of user's language means that English should be used (see Table 12). In addition, specialised terms and words should be avoided because popular terms are easier to understand.

**Table 12.** The heuristic of user's language

2.3. User's language	Translation should be done with the user's language, i.e. English should be used and popular terms favoured over specialised ones.
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There are 16 problems regarding this heuristic, of which 7 are major, 7 minor and 2 cosmetic usability problems. The major problems concern information that is offered solely in Finnish. This type of information is offered often in the form of links (see Picture 24). The websites behind the links are only available in Finnish, so the user does not benefit from the information in any way. It is also unlikely that the user would have someone to translate the texts of the target websites into English. A possible solution would be to find website that have similar information in English. The links in Picture 24 are found at section Instructions and Rules on Oulanka's pages.

- Information about the safety and equipments of canoeing: [Turvallista melontaa \(www.melontajasoutuliitto.fi, in Finnish\)](http://www.melontajasoutuliitto.fi) and [Melontaopas \(melonta.wasalab.com, in Finnish\)](http://melonta.wasalab.com).

**Picture 24.** Information offered in Finnish in the form of links

In addition to links, Nationalparks.fi has also brochures in Russian at least in three sections in Oulanka's pages (see Picture 25). This does not make sense because the website has a separate Russian language version. In order to avoid negative user experiences, all the information that is not available in English should be replaced with similar information in English or deleted.

### Брошюра НП «ОУЛАНКА»



Pdf-файл, 8,8 Мб

**Picture 25.** Brochure in Russian

However, there are cases where the user might benefit from the information offered, even though it is in Finnish. Hiking in Finland has a subsection named National Landscapes and it has a link that leads to a list in Finnish containing the 27 national landscapes of Finland. The link itself describes the contents of the list in English adequately enough: “*All 27 national Landscapes can be found on list made by the Ministry of the Environment*”. Thus, the user does not really have to understand Finnish in order to interpret the list since the list consists of place-names.

Similarly, sections named Partners at each national parks' pages have a list of partners and links to their websites. Some of the websites are available only in Finnish but the user can still benefit from their services. Since the enterprise is included in the list of partners, it can be assumed that they offer service in English and it is just their website that is in



Finnish. The user can quite easily find the contact information from the target website even though the site is in Finnish. In addition, the partners' activities are described in English (see Picture 26). The link in Picture 26 is found at section Partners on Kauhaneva-Pohjankangas' pages.

- [Liikuntakeskus Jämi - Jämi Sports Oy \(www.jamisports.fi, in Finnish\)](http://www.jamisports.fi)
  - Horse riding treks, skiing, bird watching, snow shoe walking, berry picking, canoeing, hiking, mushroom picking, theme excursions

**Picture 26.** Description of an enterprise's activities in English

The heuristic of user's language is also violated on word level. Both Rokua's and Valkmusa's pages have a case with a specified term that is not directly found from dictionaries. Example 3 presents these two cases. The first sentence is from section History on Rokua's pages, and the second sentence is from section Trails on Valkmusa's pages. The specified terms are highlighted.

- (3) National Park was finally established under legislation passed in 1956 and is nowadays the most important protection area for **Cladina-type** forests in Finland. (Nationalparks.fi 2018.)

The name of the trail, Western oasis, origins from the **ombrotrophic** raised bogs that are found in the Valkmusa national park. (Nationalparks.fi 2018.)

In the first sentence, the term *Cladina* comes from Latin and it refers to the Latin name of reindeer lichen. Even though the term *Cladina* is not available in dictionaries as it is, I was able to determine its meaning with the help of the ST which uses the word reindeer lichen instead of the Latin name. However, the term *ombrotrophic* in the second sentence does not exist in the ST and it was not found from any dictionaries. Thus, the meaning of *ombrotrophic* stays unclear. These two cases with specialised terms are counted as major usability problems because the user does not know or cannot conclude easily what the terms mean.

The research material also has three cases where the used words might not be understood by a person whose mother tongue is not English. The words are: *illumination*, *temperature fluctuations* and *gently undulating forests*. The examples are found at the pages of Oulanka National Park. For a non-native speaker of English, it would be easier to understand the following options: *(outdoor) lightning*, *variations in temperature* and *hilly forests*. Otherwise the term and word choices in the research material are intelligible to all.

#### 4.3.4 Idiomatic language

The heuristic of idiomatic language deals with the characteristics of English and the intelligibility of texts (see Table 13). Idiomatic means the typical characteristics of a language (MOT 2018), or in other words, the most typical way of using the language (Tieteen termipankki 2016). Interference means that the structures of the source language are transferred to the target language (Tieteen termipankki 2015). Interference can occur both on word and sentence level. Examples of idiomatic word choices, interference and intelligibility of the texts will be given in the discussion below.

**Table 13.** The heuristic of idiomatic language

2.4. Idiomatic language	The used language should be idiomatic, natural and contain no interference. Texts should be readable and comprehensible and contain no errors.
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Interestingly, the problems belonging to the heuristic of idiomatic language are mainly cosmetic and minor usability problems. This is because the peculiarities and slight errors in language do not really affect the use of Nationalparks.fi and in most cases the user can understand the meaning of the text easily. There are a total of 47 usability problems regarding this heuristic, of which 23 are cosmetic, 17 minor and 7 major.

Poor readability creates a negative user experience as the user has to read the sentence again in order to understand it and thus the cases related to poor readability are counted as major usability problems. In example (4), poor readability is caused by the distance of

the main subject and verb, which are highlighted in the example. The example is found at subsection named War History on Hiking in Finland.

- (4) Today these **war monuments** from the Täyssinä peace treaty border stone from the end of the 1500s to the cannon holds from sea battles waged in the most recent wars on the Gulf of Finland **are** all sights **protected** by the Antiquities Act. (Nationalparks.fi 2018.)

In other words, the main verb is located towards the end of the sentence and thus it is separated from the subject. The subordinate clause in the middle of the sentence is long and makes the reading difficult. In addition, the point of the sentence is not the Täyssinä border stone or the cannon holds, but the fact that all the war monuments are protected by the Antiquities Act. The subordinate clause merely provides examples of the protected war monuments. A possible solution would be to delete the subordinate clause and give the examples of the war monuments in a separate sentence.

In the next example, poor readability is created by interference (see example 5). In the example, the problematic English sentence is given first, then the source text in Finnish and finally a possible solution for the problem. The example depicts how the structure of the Finnish sentence has affected the English translation. The example sentences are found at section Nature (or Luonto in Luontoon.fi) on Kauhaneva-Pohjankangas National Park's pages.

- (5) Kauhaneva Mire has three centres, **where around a puddle there are** circular formations of hummocks. (Nationalparks.fi 2018.)

Kauhanevalla on kolme keidaskeskusta, **joissa** keitaan keskiosan **allikoiden ympärille** asettuneet kermit muodostavat ympyröitä. (Luontoon.fi 2018.)

In the three centres of Kauhaneva Mire, the hummocks create circular bog pools.

The problem in the example is the subordinate clause, which is highlighted both in the English and in the Finnish versions. The clause in English follows the Finnish source text closely: *where=joissa, around a puddle=allikoiden ympärille*. In the Finnish version, the

subordinate clause makes sense but in the English version, the use of *where there are* makes the sentence hard to understand. Moreover, the sentence can be translated more simply as the last sentence on example 5 suggests. Picture 27 below illustrates the meaning of the sentence, and it is taken from the same page as the sentences in example 5.



**Picture 27.** Hummocks create circular bog pools at Kauhaneva Mire

The group of minor usability problems concerning the heuristic of idiomatic language mostly consist of poor word choices. In other words, the word choices could have been more idiomatic for the English language. Example 6 presents a case which occurs on Kauhaneva-Pohjankangas', Rokua's and Valkmusa's pages on the section Instruction and Rules. The word choice of interest is highlighted and the sentence in brackets is for background information.

(6) (It is forbidden) Letting pets run **at large**.

The idea of the sentence is clear: pets must be kept on a leash. However, according to Oxford Advanced Learner's Dictionary (2005) *at large* is used to refer to a dangerous person or animal that is not captured but free. For example: *her killer is still at large*. A freely running pet might potentially be dangerous but the used idiom makes the user think

whether for example a dog has escaped from a kennel. A possible solution would be to construct a more idiomatic and neutral sentence, such as *pets must be kept on a leash* or *it is forbidden to let pets run freely*.

Other examples of poor word choices include (the more idiomatic word choice is given in brackets): *stubborn mountain avens* (persistent), *living habits* (lifestyle), *quick link* (short cut), *the old head of Natural Heritage Service* (former), *Finland's highest high-spot* (Finland's highest point), *sparse tortuous pines* (stunted pines), *reservable* (bookable). Even though these word choices do not affect the use of the website, there is clearly something odd about them and some of them are also rather humorous.

The usability problems regarding writing errors or small grammatical errors are classified as cosmetic usability problems. These problems do not affect the use of the website and the user still understands easily what is meant. Example 7 presents a grammatical error, which is highlighted in the sentence. The example is found at subsection History on Oulanka's pages.

- (7) The harvested hay was stored in a barn till winter, when **they were** transported to farms to feed livestock. (Nationalparks.fi 2018).

In the example, the subject *hay* is referred as *they* in the subordinate clause. The reference is incorrect because hay is an inanimate object and thus it should be referred to as *it*. The incorrect reference *they* makes the user wonder who were transported to the farms. Fortunately, it is easy to conclude from *to feed livestock* that *they* refers to hay.

Example 8 presents a case with a writing error which seems to be due to oversight by the translator. The example is found at section Stress Management on Hiking in Finland. The error is highlighted in the sentence.

- (8) Because stress **can related** to infections and chronic diseases, it is important to your health that you take the time to recover properly from stress. (Nationalparks.fi 2018).

In the example, the highlighted verb is formulated incorrectly. Instead of the used form *can related*, the verb should be formed either *can be related* or *can relate*. Often the cosmetic writing errors in the research material concern wrong verb form like in example 8 or lack of conjunctions.

On the word level, the writing errors concern misuse of singular or plural form of the noun, for example: *to protect nesting bird* (should be in plural *birds*). On the other hand, the errors are often just plain errors in writing, like in the following cases: *gageteria* (cafeteria), *diffuculty* (difficulty), *On Kauhaneva Mire, the **edged** were drained* (edges). All the cosmetic usability problems regarding the heuristic of idiomatic language seem to be caused by a human error and are easily fixed.

## 5 CONCLUSIONS

The aim of this Master's thesis was to examine the overall usability of Nationalparks.fi website, which is the English language version of the website Luontoon.fi. The research was conducted from the perspectives of general usability research and user-centered translation (UCT) which together offered the research method, heuristic evaluation. Heuristic evaluation was conducted with the help of a list of heuristics which was constructed according to the theoretical background. Thus the list consisted of two aspects: general usability aspect and UCT aspect (see Table 1 in section 3.3.2).

In order to create an overall picture of the usability of Nationalparks.fi, the research material included entirely or partially all the main sections of Nationalparks.fi: the front page, Destinations section, Volunteer Work section, Hiking in Finland section and What's New section. Furthermore, I formulated three research questions related to the aim: 1) How severe are the found usability problems? 2) What are the found usability problems like? 3) How many of the possibly found usability problems are related to translational aspect?

The answer to the first question is that most of the found usability problems were minor ones (57 problems) (see Table 3 in section 4.1). These problems should be fixed but the fixing can be given a low priority. However, the numbers of the problems regarding cosmetic and major usability problems are not dramatically different from the minor usability problems: the heuristic evaluation found 51 cosmetic problems and 45 major problems. Cosmetic problems do not really affect the use of the website and they can be fixed when possible. The fixing of major problems should be given a high priority because they create more negative user experiences than cosmetic and minor problems. Catastrophic problems on the other hand should be fixed immediately. A total of seven catastrophic usability problems were found.

As regards the second question, most usability problems concerned link functionality (50 problems) and idiomatic language (47 problems) (see Tables 4 and 5 in section 4.1). Links appear on every page on Nationalparks.fi, and therefore it is not very surprising to find

so many faulty links. Moreover, the seven catastrophic usability problems were completely inoperative links, and thus these links violate the heuristic of link functionality. As regards idiomatic language, the website has problems with sentence structure and word choices. Also writing errors and grammatical errors fell into the heuristic of idiomatic language which for one explains the rather large number of problems regarding the heuristic of idiomatic language. In addition to link functionality and idiomatic language, the 20 problems regarding effective information design are also noteworthy. The problems that violate this heuristic regard mostly repetition of information.

The answer to the third question is interesting, since the difference between problems related to the UCT and the general usability aspects is non-existent as both aspects have exactly 80 usability problems. Thus the UCT and the general usability aspect in Nationalparks.fi seems to be in balance. However, the general usability aspect has two heuristics that clearly have more problems than the other heuristics in the aspect whereas UCT aspect has only one such heuristic. The clearly distinguishable heuristics in the general usability aspect are the heuristic of link functionality (50 problems) and the heuristic of effective information design (20 problems). In addition, the catastrophic usability problems belong to the aspect of general usability. Thus, the concentration of problems in the general usability aspect seems to indicate that Nationalparks.fi violates slightly more the aspect of general usability than the aspect of UCT.

From the severity ratings and the nature of the found problems, it can be concluded that the level of usability of Nationalparks.fi is good. The website is usable, and only the seven catastrophic problems are very hard to recover from. The other found problems are somewhat easy to pass even though many of them do create negative user experience. However, many of the problems represent similar types of problems and they are repeated throughout the website. Thus, this thesis proves that small things do matter and participate in creating user experience.

On the basis of this study, Nationalparks.fi should be updated more often and more precisely to avoid the repetition of the similar types of problems. The most effective tool



for this would be basic proofreading which uncovers the language errors and faulty links. In addition, Parks and Wildlife Finland are planning to reduce the amount of material in Nationalparks.fi in 2018, which would affect the usability of the website positively. Thus, navigation would become easier and perhaps the aesthetic and minimalist design would improve. At the time of writing this thesis, the design of Nationalparks.fi is appealing enough but it shows that the purpose of the site is to be an exhaustive database about nature destinations in Finland. In the future, the design could be developed to more inviting and visually modern one.

In addition to discovering the level of the usability of Nationalparks.fi, this thesis also proved that heuristic evaluation is a practical and usable tool when examining the usability of a website. The method is easy to learn and apply in practice. The method also combined conveniently the theoretical viewpoints of this thesis, that is, UCT and usability research. This study also proves that it is possible for a single evaluator to find usability problems, even though according to Nielsen (1995a), it is advisable to have 3 to 5 evaluators so that various different kinds of usability problems could be identified.

However, the deeper analysis of the UCT-related problems proved to be more complex and time consuming when compared to the general usability aspect. Justifications and explanations for grammatical problems had to be looked for from different dictionaries. Moreover, some of the possibly problematic word choices had to be cross-checked to make sure that the word used in Nationalparks.fi is indeed natural and idiomatic English. In other words, some word choices might seem odd to me at first but turn out to be used words in English language. Thus, it is sensible to take this into account when embarking upon heuristic evaluation related to translational aspects.

This study also tested UCT, which is a rather new field of research. Thus, heuristic evaluation works also from the point of view of UCT. However, it should be remembered that this study represents a case study of the specific case of Nationalparks.fi. This study serves as an example of how to employ heuristic evaluation and how to tailor one's own list of heuristics according to the research material. The tailored list of heuristics is one of the key aspects in conducting heuristic evaluation successfully.

For the future research, it would be interesting to conduct usability testing with real users for some language version of the website complex. This way also the mobile use and the search could be studied. Usability testing would obtain real user experiences and help to develop the website complex even more user-friendly. Furthermore, the different language versions of the website complex could be studied from the point of view of user-centered translation as well. For example, the consistency of the different translations in different languages could be considered. Also the cultural aspects could be taken into account and compare whether there is different information for example for Russian or Chinese tourists in terms of content, and whether the changes in content are justified.

Even though this study was not commissioned by Parks & Wildlife Finland, I hope that the results of this study will provide useful and relevant information for the website reform project of Parks and Wildlife Finland. Nonetheless, the results of this study point out that the small things do matter in usability of a website.

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# Appendix 1. Example of a national park's front page: Oulanka

Nationalparks.fi / Destinations / National Parks / Oulanka

**Oulanka**

- Activities
- Directions and Maps
- Frequently Asked Questions
- History
- Instructions and Rules
- Nature
- Services
- Sights
- Trails
- What's New

---

**Destinations**

- Top Natural Attractions
- National Parks
- World Heritage Sites
- National Hiking Areas
- Wilderness Areas
- Other Nature Sites
- Hiking Trails
- Huts
- Historical Sites
- Nature Centres
- Accessible Destinations

## Oulanka National Park

**19.12.2017**  
 Warning! The trails do not have winter maintenance. The less frequently walked trails may be covered under heavy snow. We ask for attention on the saiths, as some of the route markers may be covered with snow and frost.

Kibajoki river on early winter. Photo: Olli Lemmisaari

< 1 2 3 4 5 6 7 8 9 10 MAP >

In the rugged landscape of the Karhunkierros Trail, you will observe the power of water. The many trail options and hanging bridges of the Oulanka National Park will take you to the most impressive waterfalls in Finland. The jumps of wild brown trout, the dives of European dippers, the unlimited beauty of the aspa mires and the lovely calypso will challenge even the experienced nature photographer.

Nature doesn't recognise any state boundaries: the vast wilderness of the Paanajarvi National Park is to be found on the Russian side of the border.

These routes cannot be reached in winter (no snow plowing to departure points) Kankean kuuhu aspu access trail (200 m), Kanjonin kurkkau trail (6 km), Keroharjun kuskau trail (17 km). Read more about our accessible Winter Trails.

### Surging Rapids along the Karhunkierros Trail - in Oulanka National Park

**Location:** In Northern Ostrobothnia in Kuusamo (www.kuusamo.fi) and in Eastern Lapland in Salla (www.salla.fi). Read more

**Arrival:** By car and public transportation. Read more

**Activities:** Hiking, canoeing, snowshoeing. Read more

**Sights:** Rugged riverbanks shaped by the ice age, meadow barns, rapids and waterfalls, hanging bridges, aspa mires, rare species. Read more

**Suitability:** Suitable for everyone, all year round.

**Services:** A wide variety of services, throughout the year: the Oulanka Visitor Centre, the Oulanka Camping Ground, the Karhunkierros Trail, numerous day trails, a trail accessible for all, open wilderness huts and tent sites, campfire sites and firewood, dry toilets, recycling points. Services provided by our cooperation enterprises are available in the area. Read more

**Trails:** Routes ranging from short day trails (2-12 km) to the Karhunkierros Trail (82 km), which is an excellent choice for your first ever long hiking trip. The area has a total of 150 km of marked trails. The River Oulankajoki canoe route (1-25 km), the wintery wilderness trail (26 km), a trail accessible for all (0.3 km), Pieni Karhunkierros Trail (12 km). Read more

This is the web page www.nationalparks.fi/oulanka

The area is managed by Metsähallitus, Parks & Wildlife Finland. Address: Torangintäival 2 93600 Kuusamo, Finland.

#### Self-guided Tour: "Kuusamo's Renowned National Parks"

Pdf-file 0.8 Mb (julkaisut.metsa.fi)

#### Oulanka Web Cam

#### Map of Destination from excursionmap.fi

Excursionmap.fi: Oulanka

### The Magic of River Valleys Elsewhere

Arctic Circle Hiking Area

- Kottajoki Area
- Hammastunturi Wilderness Area
- Lemmenjoki National Park
- Ruunaa Hiking Area

**Nearby Destinations**

- Korouoma Nature Reserve
- Narankä Natural Forests
- Riistunturi National Park
- Syöte National Park

### Customer Service

Oulanka Visitor Centre  
 Tel. int. +358 206 39 6850  
 Email: oulanka(at)metsa.fi

Kuusamo Customer Service Karhuntaasu  
 Tel. int. +358 206 39 6804  
 Email: karhuntaasu(at)metsa.fi

- Oulanka Visitor Center
- Oulanka National Park
- @Finnishparks
- @finnishparks @luontoon.fi #finnishparks #finnishnationalparks #oulanka #oulankanationalpark #karhunkierros

- By Public Transportation
- By Car
- What is New
- Services Provided by Partners
- Accessible services



## Appendix 2. Collage of the repeated elements on Oulanka's front page

### Surging Rapids along the Karhunkierros Trail - in Oulanka National Park

**Location:** In Northern Ostrobothnia in [Kuusamo \(www.kuusamo.fi\)](http://www.kuusamo.fi) and in Eastern Lapland in [Salla \(www.salla.fi\)](http://www.salla.fi). [Read more](#)

**Arrival:** By car and public transportation. [Read more](#)

**Activities:** Hiking, canoeing, snowshoeing. [Read more](#)












**Sights:** Rugged riverbanks shaped by the ice age, meadow barns, rapids and waterfalls, hanging bridges, aapa mires, rare species. [Read more](#)

**Suitability:** Suitable for everyone, all year round.

**Services:** A wide variety of services, throughout the year: [the Oulanka Visitor Centre](#), the Oulanka Camping Ground, the Karhunkierros Trail, numerous day trails, a trail accessible for all, open wilderness huts and tent sites, campfire sites and firewood, dry toilets, recycling points. Services provided by our cooperation enterprises are available in the area. [Read more](#)

**Trails:** Routes ranging from short day trails (2-12 km) to the [Karhunkierros Trail \(82 km\)](#), which is an excellent choice for your first ever long hiking trip. The area has a total of 150 km of marked trails. The River Oulankajoki canoe route (1-25 km), the wintery wilderness trail (26 km), a trail accessible for all (0.3 km), [Pieni Karhunkierros Trail \(12 km\)](#). [Read more](#)



<b>Oulanka</b>	 By Public Transportation 
Activities	
Directions and Maps	
Frequently Asked Questions	<b>P</b> By Car 
History	
Instructions and Rules	 What is New 
Nature	
Services 	 Services Provided by Partners 
Sights	
Trails 	 Accessible services 
What's New	

**Appendix 3.** The menu of Hiking in Finland section

<b>Facilities</b> ▼	
Accommodation	
Transport	
Health and Well-Being ▼	
Open Air Exercise ▼	
Biking in Finland	
Geocaching	
Stress Management	
Sense of Community	
Natural Silence	
Rights and Regulations ▼	
Campfires ▼	
How to Light a Campfire	
In Case of Fire	
Campfires Outside Designated Sites	
International Borders	
Litter ▼	
How to Make Sure You Leave no Trace	
What to See ▼	
History and Culture ▼	
Cultural Heritage of the Sámi in the Northern Lapland	
Heritage Farms and Heritage Landscapes	
History of the Finnish National Parks	
National Landscapes	
Old Buildings	
Prehistoric Sites ▼	
War History	
	Scenery ▼
	Bogs
	Geology
	History of Nature
	Photography in Finland's National Parks
	Old Growth Forest
	Seasons in Finland
	Trees and Plants ▼
	Lily-of-the-valley
	Wild Berries and Mushrooms
	Wildlife ▼
	Predators
	The Saimaa ringed seal
	What to Take ▼
	Food and Drink
	Insect pests
	Safety
	Terrain
	Where to Go ▼
	Finnish Lapland
	Many Different Kinds of Destinations
	Most Popular National Parks
	The Archipelagos
	The Lake District
	Trail Diffuculty Classification
	Links