

Project Report for Course:

DV1557- Usability and Interaction Design
ANVÄNDBARHET OCH INTERAKTIONSDSIGN

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ARNGREN.net

Technology and Gadgets

Evaluation Project

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Abstract:

This paper is to give an overview of arngren.net website which is evaluated based on the heuristic principles where we have done expert evaluation for our choose website. We identified various flaws in the website based on expert evaluation technique where we could further give ideas of better improvement. This could be achieved by applying the usability design principles in our website. Link: - <https://www.arngren.net/>[1]

Introduction:

Our website “Arngren.net” is a Norwegian website. This website primarily deals with the selling of various gadgets and other appliances where the user has the choice of selecting the desired product. The users could explore the clear details of the product like cost, dimensions, color attributes as well before purchasing the product from the website. Arngren.net website also given a choice to the users to see the video preview to learn more details about the product. Website also given payment option to the desired product.

Argren.net website is not only for selling for gadgets and appliances but also accept our old electronic goods for free.

Background:

The human computer interaction (HCI) is a combination of behavioral sciences and other various fields of study. The main motive of HCI is to focus more on users in a human centered way that takes account of human abilities and ensures that the systems are accessible, usable and acceptable. The designers need to put people first rather than technology as the center of design. The central focus of human interaction is usability.

The notion of software games changed periodically. The Wii is one of the game concepts which uses infra-red sensors attached to TV or other devices to track the wand that transmit the infra-red signals. Later to appeal the audience, the new system, named Kinect which is a combination of infra-red detection and cameras that enable the users to interact with software using gestures without the need of wand was adapted by Microsoft. This is one of the good examples of how the users feel and experience the new system in a easy to operate manner enhancing the user’s perspective and quality.

Primary goal of Arngren.net

Overall goals:

The Goal of the website is to showcase for the users and to engage more users in purchasing their gadgets and appliances. The website provides direct instructiveness with the user where he/she can directly select the product and then re-directed to the payment options. There are very frequent updates on the products and available offers.

Key features

- The main key feature of the system is to support different gadgets, and other appliances for the users.
- Upon the user selection, then payment and contact details are redirected in the next page after the user clicks on the product image.
- Frequent updates of products and offers are made available.
- There is a clear description of the product along with an attached video to know more information about the product.

Evaluation Methods

Expert evaluation:

The main approach of expert evaluation is that the we walk through the representative tasks. We picked up the problems based on experience and tried to identify the possible factors that interferes with evaluation of non-experts

Heuristic evaluation focus on to refer the methods and to examine the proposed design against list of principles or heuristics for well-defined design.

There are a set of heuristics to consider for web design. Some of them are as follows:

- 1.Visibility
- 2.Feedback
- 3.Recovery
- 4.Navigation
- 5.Affordance
- 6.Flexibility
- 7.Style
- 8.Consistency
- 9.Familiarity
- 10.Conviviality

We have identified the heuristic violated and found ways to suggest the possible solution for better improvement. More importantly, to do the expert evaluation we focused on task analysis-working on each subtask that are part of big tasks.

Task Analysis

Tasks to Analyze: Purchasing of Gadgets, Cancellation of the product, Selling the product to Arngren.net

Subtasks:

Purchasing of Gadgets

- Click the “Digital-Binoculars”
- Select any Binoculars you like to buy in the “Digital-Binoculars” page.
- Click the “kjop(buy)”
- click the pay option to pay the money

- send a mail to given mail with you Address, Tel.no, order no, Quantity and paid amount

Cancellation of the product

- Click the “How to pay” option in the main page.
- select the “Cancellation form “
- Fill the details in form which have your personal details
- Read the terms and conditions
- Submit the form

Selling the products to the arngren.net

- Click on the “How to pay” option in the main page.
- select the option “We accept your old electronic goods for free”.
- Click on the “similar products”.
- Select your desired way of “Waste and Recycling” the product
- “Submit” your selection

Evaluation criteria

Ten heuristic principles [2]: -

1.visibility of system status: -

This mainly gives information for the users about what is going on within the reasonable time. That is the system shows current state and action to the users in conveying the progress of the current action which is initiated by the users.

2.Match between System and real world: -

Following the real-world analogy, the website should display the user’s language with words, phrases to provide quick understanding of the terminology described in the webpage rather than system-oriented words.

3.User control and Freedom: -

Some system functions are mistakenly chosen by the users and to leave the unwanted state with emergency exit or Support of redo and undo operations for the user with given freedom provides users more convenience. The user’s actions should be given feedback within certain time limits.

There are 3-time limits: -

- 0.1 second- User’s result is displayed in a simple way
- 1 second-Users don’t get disturbed within this time period.
- 10 seconds-For longer period than this, the users wont focus on the current task completion and starts to do other tasks. Feedback is an important aspect to the users to stay uninterrupted.

4.Error prevention: -

Getting an error message is a good sign as we get a chance to change the error condition or rectify the error. This helps in prevention of errors.

5.Help users recognize, diagnose and recover from errors: -

The error messages should not be shown in code format which could be hard for the users to understand. So plain language of the error description would be of good choice for the users.

6.Consistency and standards: -

Users should not be confused about the different words or actions which mean the same thing. So certain conventions when followed gives better clarity to the users.

7.Recognition rather than recall: -

Reducing the need to memorize the content, instructions should be clearly shown for the users whenever needed.

8.Flexibility and efficiency of use: -

Autofill action for the users would speed up the interaction and easy to use.

9.Aesthetic and Minimalist design: -

Irrelevant information should be possibly avoided to cater the needs for the user just with suitable dialogues.

10.Help and documentation: -

Guidance of instructions with suitable steps provides assistance to the novice users. List of steps for easy search could be much better help for the users saving their time.

Problems identified:

Visibility of System status:

The arngren.net home page is full of images of tools, devices and information related to them more than that of images and information in a mixed and disorganized manner so that the complete information is not passed on to the user. Some pictures and information overlap. Since the page is full of content, the specific thing is hard to find. The appearance of the website different in desktop version and the mobile version



Fig-1 Desktop view of Arngren.net



Fig-2 Mobile view of Arngren.net

Match between system and the real world:

There is a frequent update on the website about the product but there is no clear vision of the product and for some products, the picture is not in a clear way, as the tools and devices do not appear logically, some of the buttons below the index menu are not redirecting to the landing page and using some spam That makes the user feel more difficult

But the website doesn't have any icons which resembles the real-world feature

User control and freedom:

The site is lack of instructions and the documentation the user can unexpectedly took any action with having any idea about it, to stop that action there is no indication or any emergency exit and it will not give any notification to the user.

Error prevention:

The website does not contain any instructions and information about using a specific button, so when a user takes any action, it does not pop up in the dialog box to form the action.

Help users recognize, diagnose and recover from errors:

The site will not give any suggestions for the actions done by the user and there is no sign of any blunder and it don't have any discourse box popup notice for submitting the activity. Some of the images and the text is overlapped which make user experience more critical



Fig-3 overlapping of text

Consistency and standards:

In the website there are a greater number of images, different styles of text and different shaped text which kills the user experience. Move over in home page itself it has the three-search bar in different positions but all the 3 search bars have the same significance.

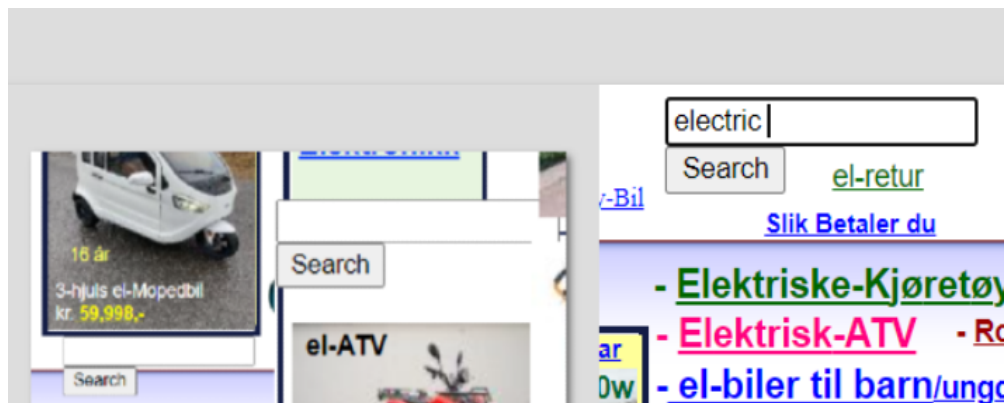


Fig-4 3-search bars

Recognition rather than recall:

Arngern.net has a search bar that makes the user search for a specific product very easily, but the problem is that it does not provide any suggestion while searching for the product, and this aspect makes the user feel difficult, because the user must remember the full name of the product to select it.



Fig-5 Search bar suggestion

Flexibility and efficiency of use:

Website have a number of flaws in that the efficiency is one of the main flaws. It would be difficult to remember the past page when the client is on the current website page. So, the client feels exercise in futility to click back again to past page as opposed to opening another page after each snap.

Aesthetic and minimalist design:

The website designer of Arngren.net website used more than four different colors which the user to remember the significance of the colors. when coming to the design part of the website the products and the information about the products are messed up in single page which is considered as the awful design.

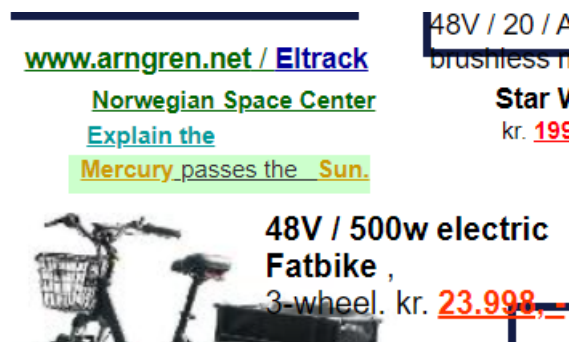


Fig-6 Different colors

Help and Documentation:

On clean observation, we can say that website don't have any step or documentation saying how to use the particular button and also it doesn't give clear information about the gadget and it does not have a clear payment method. The cancellation form of purchasing details is in the Norwegian language it makes it unclear for the user to fill the form.

Suggestions on new version of website

1. Rather than displaying all the products in the home page make a menu for all the available options then the user can select the option on that he/she can re-directed to the corresponding page from that menu.
2. Giving the white spaces between the product display and product information.
3. Keeping the “onclick” actions for the products to get complete information and the payment method
4. Improving the search bar suggestions which makes the user to not remember the complete product name.one search bar would be enough for the searching



Fig-7 Search bar [3]

5. Giving the clear instruction about the usage and the error message in case of any misuse
6. Highlighting the important aspects like hyperlinks, payment option etc.
7. Attaching the cancellation form in the English version.
8. Avoiding the overlapping of the product picture and the information about the product.
9. Making the website is also compatible to the mobile version
10. As it's an online purchasing store, adding more web pages like cart, login make the website more efficient.

Arngren

[Languages ▾](#) [About](#) [Sell on Arngren](#) [Login](#) [Shopping Cart](#)

Fig –8 Menu bar

Summary and discussion:

At last, after applying the Expert Evaluation Technique on the Arngren.net site we discovered numerous zones where we can apply Usability design principles to improve the website. Expert Evaluation technique given the answer for the issues recognized in the site. Applying those techniques gives the better improvement in the UX design of the site.

While coming into the website, the user interface is jumbled and arranged disorderly. It has the poor navigation, different sized pictures and different color fonts, there is not organized display of item in the website there is no perfect place to the user to order the products. those flaws can be rectified by the suggestion given by the expert evaluation techniques.

When we had our first meeting, we looked for the website which is violating the rules of the heuristic principle then after deciding on the website. We had several meetings for discussing the flaws. We used expert evaluation techniques for assessment of our website and we as compared with some other website and given the idea to enhance the website in term of UX-design and the fast response.

References:

- [1] “ATV, drone, elbil, elsykkel, rc helikopter, ATV, robot, elatv.” <https://arngren.net/> (accessed Mar. 18, 2021).
- [2] “10 Heuristic Principles – Jakob Nielsen’s (Usability Heuristics).” <http://www.uxness.in/2015/02/10-heuristic-principles-jakob-nielsens.html> (accessed Mar. 18, 2021).

- [3] “The User Interface of www.arngren.net and Unfortunate Shortcomings | by Naomi Lee | Medium.” https://medium.com/@naomi_lee1/the-user-interface-shortcomings-of-www-arngren-net-94b18a8265d6 (accessed Mar. 18, 2021).

Appendix:

4WD, 3-seater, Willy el-Jeep , with Rubber tires,
Remote control and Leather seats.
kr. **5.998,-**



[Video -1](#)

[Video -2](#)

Payment of the Item (s)

www.ARNGREN.net

Dear Customer

Currently you have to pay for the item (s)
directly into the account of
Arngren Sky Commuter AS
(16451213745), or **with Vipps to mobile no. : 92060873**

Shipping & packing NOK 199,- (or see at the Product) For larger items, ask for Shipping

[Cancellation form click here, or see below on the page](#)

[Pick-up Order Click here](#)

-)
02. [Pay](#) this amount to Bank Account no. :
16451213745 Read the Cancellation Form before you pay.
 03. Send an e-mail to: frithjof@arngren.net
with your Address , Tel. no., Order no. on the products ,
Quantity and Paid Amount (Min. Order NOK **298,-**).



BARNE- OG LIKESTILLINGSDEPARTEMENTET

Skjema A (bokmål) side 1 av 2.

Dette skjemaet er obligatorisk ifølge forskrift om angreskjema av 27. februar 2001 fastsatt av Barne- og likestillingsdepartementet med hjemmel i lov 21.12.2000 nr. 105 om opplysningsplikt og angrerett mv. ved fjernsalg og salg utenfor fast utsalgssted (angrerettloven) § 10. Skal brukes ved fjernsalg og salg utenfor fast utsalgssted av varer.

DU HAR 14 DAGERS UBETINGET ANGRERETT

Etter angrerettloven kan forbrukeren gå fra avtalen uten å oppgi noen grunn innen 14 dager etter at hele varen og de opplysninger som kreves med hjemmel i angrerettloven kapittel 3 er mottatt på foreskrevet måte (se side 2 av dette skjemaet). Fristen løper ved fjernsalg uansett om det er nærmest 3 måneder etter at varen er mottatt, eller 1 år dersom opplysninger om angrerett ikke er gitt. Det er ingen tilsvarende frist ved salg utenfor fast utsalgssted.

Om bruk av angreretten må gis til selgeren innen fristen, og kan gis på hvilken som helst måte. Du kan bruke dette skjemaet som skal være utfyllt av selgeren som spesifisert i forskriften. Fristen anses overholdt dersom meldingen er avsendt innen fristens utløp, og du bør være for at dette kan dokumenteres.