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Individual exam

Project report

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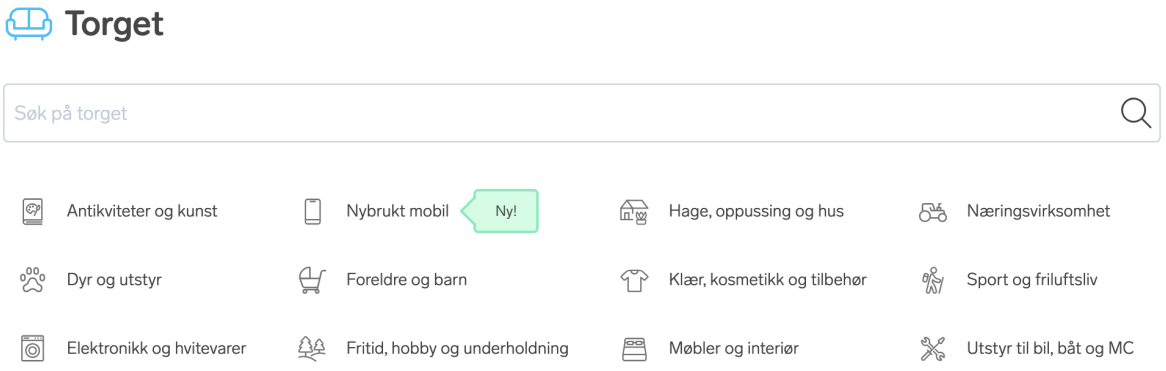
Universal design

1) What is universal design (UD)

Universal design, when talking about website's and digital solutions, involves making it as easy for the users of the website/application. A website should be easy to maneuver through, regardless of a person's prior knowledge of the internet and websites/apps. This includes the correct use of colors and contrasts, "alternative"-tags on images, buttons, and other, to make it easier for visually impaired people to navigate in the web application, as well as avoiding blinking lights for light-sensitive people and simple layout of where things are located on the web application. Flexibility is important to keep in mind, considering all the different types of screens people are using (tv-screens, computers, tablets and phones), to make the content available for everybody. And with a design that makes a conscious choice as to where to put objects, the user will have less difficulty remembering how the web application works, for the next visit.

An example of universal design, is the homepage of Finn.no. Finn is a platform for buying/selling, job-search/-advertisement or travels, er this (image below) the first thing that the user can see, when visiting the website. The design is a cool blue/white, with not too big letters.

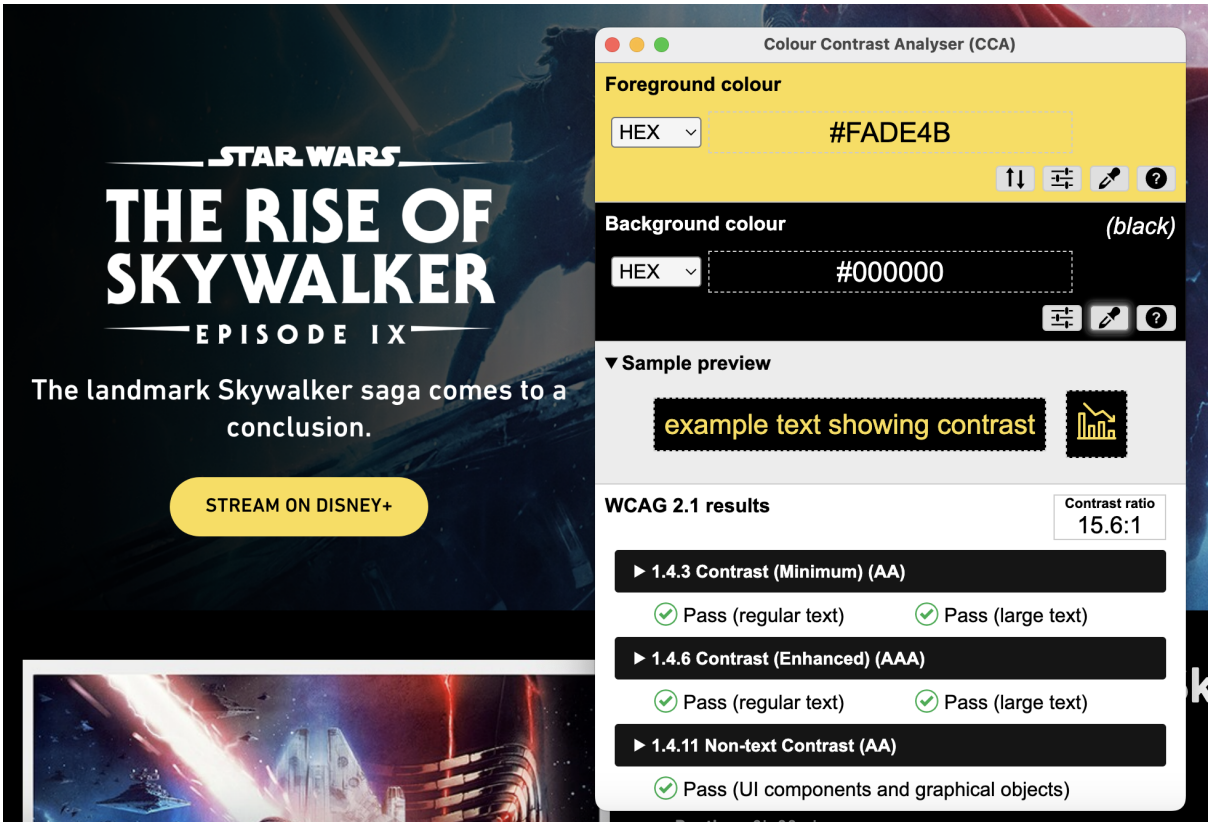
If the user were to press "**Torget**", this is what would appear (image below). The design is the same as the previous site, creating continuity for the user.



2) Contrast in universal design

The contrast for a universal design is necessary in order to highlight where the user should navigate to. If an input-field has a white *placeholder*-text, it will be difficult for the user to know what they should type. Darkened letters on a black background is also something that can cause problems for the user, navigating on a website.

With good use of contrast, a web application will feel easy to move through. Text will be easy to read with the correct use of colors against a correct contrast, and the purpose of the web application will be more complete and feel more as a solid solution for the users. I used CCA (Color Contrast Analyser) to show what it thinks was a 100% correct use of contrast on a website's button.



StarWars.com has designed their page with white text and black background. This makes every letter clear and visible against the background. Their button "*Stream on Disney+*" is yellow and black, which makes the colors not overlap each other. This button checked out on all the boxes, in the CCA, as seen in the image.

3) <img> in UD

The image-tag is especially important to keep in mind, when building a website/application, for people who are visually impaired. This helps them navigate through the website, without getting lost or pressing the wrong functions/buttons. Some of the attributes that is needed, to fulfill the universal design, with <img>, is:

- Alternative tag:

```
<img
   src="src/assets/ferrariRacecar.jpeg"
   alt="Ferrari_racecar. Photo."
 />
```

In the image above, the ***alt***-tag is used to describe what the image is showing, and if the image is an illustration or photo. The alt-tag should also resemble the name of the file, in this case, "***ferrariRacecar.jpeg***".

- Alt-tag on buttons:

```
<button onClick={handleButtonClick} alt="Press me">
  Press me
</button>
```

The same guidelines apply for buttons, with the alt-tag giving a description of what the user should do with the button.

4) Semantic coding in UD

Semantic coding means to put each thing in its rightful place. This makes it easier for the user to identify what a certain part of code and website is used for. Usually, a website consists of a ***header-***, ***navbar-***, ***section/articles-***, ***h1/6-***, ***p-***, ***button-***, ***footer-tag***. All of the mentioned tags serve a different purpose, but can be wrongfully used. This will cause confusion, not only for the user, but for the website itself. The website would be more prone to bugs and errors, if semantic coding would not be involved. For instance, There should be only one usage of a h1-tag, and that is for the main page. When writing a blog, it would be easier to use the section/article-tags, rather than several div-tags. And when ranking the scoring of a competition, on a website, it would be confusing if the tags was ***<ul>***, and not ***<ol>***. The footer-tag should only contain who owns the website, and their contact information, and is widely used for this sole purpose. Here is an example of how semantic coding can look like on a website:

```
<body>
  <main>
    <header>
      <nav>NavBar</nav>
    </header>
    <h1>Introduction to the main page</h1>
    <section>
      Section with articles
      <article>
        An article
        <h3>Headline for the article</h3>
        <p>The information and text</p>
        <img src="" alt="image_of_given_subject" />
      </article>
    </section>
    <footer>
      <p>Copyright and contact information</p>
    </footer>
  </main>
</body>

```

5) Usability in UD

Usability encompasses how easy a user can maneuver in a website/app, and how easily they can achieve their goals in the digital service. That can involve shopping, messaging, changing the settings of their profile, and other actions. In order for a website to have full usability, there are some criterias that need to be met.

- **Availability** for the digital service to be accessible for everybody, on different types of hardware, which includes tv-screens, computer-screens, tablets and phones.
- **Clarity** with a simple design, and a recognizable pattern that most websites use. For instance, to keep the nav-bar at the top of the site, not at the bottom. To minimize advertisements to the side panel, and not in the center. The user should be able to tell where they want to go, without having to look for a long time.
- **Learnability** is how quickly the user will learn how your given website/app works. With interactions (buttons, input-fields, sections displaying items) that clearly say what they do, users will never be second-guessing the website's functionality.
- **Credibility** is another word for “trust”, in a website's usability. With the growing threat of cyber criminals, a website’s credibility is crucial to the user. This can be enforced with simple implementations, such as user reviews or a clear reference to who is responsible for the website. For instance, NRK has the name of the editor, and the name of the network manager, in their footer.

- **Relevancy** means to know who your users are, and what they want, and how to keep your website/app updated with their needs.
  (Idler, 2021)

References

Sabina Idler, (30.sept, 2021). *Five key principles of Good Website Usability*. https://www.crazyegg.com/blog/principles-website-usability/