The Local Guide Dog association app

Course assignment: Accessibility

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Everyone should be able to access and enjoy the web. We're committed to making that a reality.

Google's Accessibility Statement

Preface

In this assignment, we made a sign-up form for a local guide dog association where we had to focus on individuals with sight limitations. This sign-up form is part of an app and will be used by volunteers to register as foster homes for guide dogs or individuals with sight limitations who need foster homes for their guide dogs.

The assignment contains sketches, low-fidelity wireframes, a prototype and documentation about our user test—also descriptions of how we implemented best practices and guidelines regarding forms on mobile devices and accessibility.

Persona



Bio

Grethe is a fun-loving lady who loves spending time with her grandchildren and reading good books. She also spends much time outside in nature and her garden.

She was married for 20 years but became a widow three years ago and has three children and 5 grandkids. She also likes to be social with her friends in the local community.

A year ago, the doctors found out that Grethe had developed glucoma. Unfortunately, she has gone untreated for too long, and her vision has already become significantly impaired. With medication, this can be kept the same. But not with certainty. She may risk losing her sight completely in the long run. She has now been assigned a gluide dog that will help her be active in everyday life and keep her company. "I would very much like to live life to the fullest even though my sight is gradually failing."

Social Compassionate	Result-driven		
Compassionate			
Compassionate	Social		
	Compassionate		
Creative	Creative		

Name: Grethe Isaksen

Age: 69 Occupation: Pensioner Location: Oslo Education: Teacher

Status: Married



Guidelines during sketching

We started to determine what we needed to consider in our low-fidelity wireframes and where our focus should be regarding the testing at the end of this process.

We **grouped information** in a logical order and had to think about a **simple design** because of the amount of input fields in this form and matters of accessibility. Therefore we crunched down the form into a **3-step process** to ensure that it felt manageable to fill out. The sizes of elements were considered, and we followed some golden rules from <u>Google's Material Design</u> about **sizes and space** to ensure that we met the need of people with sight limitations.

Language and labelling are vital areas when designing not only for people with accessibility needs but for everyone. Therefore, we had long discussions on how to use plain and straightforward language to ensure that the information was understandable.

When designing on mobile devices for people with sight limitations, **consistency and proximity** can be essential and can create either a good or bad user experience. That is why we also kept in mind the placement of design elements.

For this assignment we haven't focused on colours, imagery or sound/motion as we felt it natural to leave those areas to the next round with mid - og high fidelity level.

It is also worth mentioning that if we should have making a design system for this app we would also have considered a **scalable design** to ensure that every device is possible to use.

Sketching & prototyping

The first sketches were drawn by hand to gain an overview of the distribution of the elements, which allowed us to discuss alternatives. We did three rounds of analogue sketching before we started with digital low/mid-fidelity sketches. Since designing for accessibility, visibility and the size of elements is very important, so we made accurate sketches.

Testing our digital sketches early on a mobile device gave us good guidance on how the elements work together. We found some sizing issues and iterated further. Then we made an early prototype and found flow issues. We had five iterations of our digital sketches to reach a testable version. We put some effort into making the final prototype "perfect" so the test person should not lose focus on what we were testing; the accessibility.

We wanted to see if the elements were big enough, if there were enough contrast, would a screen reader work and if zooming would work. The prototype was built with the focus states to mimic how a screen reader works. This caused more tapping but gave a more realistic feel based on our experience with a native screen reader.



Testing wireframes

We chose to go for a full usability test to get the best possible feedback. First, we created a persona to empathise and put ourselves a little more into the problem of the person with visual impairments. We also created a full script with a consent form which we followed through the testing.

Since it was supposed to be a form in an app, we tested it with the Figma app on a mobile device to make it as accurate as possible. This worked very well to see how the participant interacted on the mobile device.

During the test, we used the concurrent think-out-aloud (CTA) and the retrospective probing (RP) to hear what the participant was thinking throughout the testing and get the information we needed to see how she was interacting with the product with low vision. We also tested the prototype ourselves before the usability testing.

We chose to conduct two tests. One at 100% zoom to see how the elements worked, and one at 300% to ensure the form was functional when enlarged.

<u>Link to</u> <u>testing script</u>

Collecting & analysing the data

Moscow method for

The group went through the video and wrote observation notes when we finished the usability testing. We used Figjam to create an affinity mapping to conclude action points, and we did this to obtain the most important observations. To determine what we should iterate on and what was most important, we used the Moscow technique to select the design changes.

<u>Link to affinity</u>
<u>mapping & moscow</u>
method

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Design iteration

In general, the improvements considered language, proximity and flow.

You can also see our changes in Figma as orange annotations in the wireflows.



- 1. Change the app's name to avoid confusing the users (**straightforward language**).
- 2. Size up the checkboxes and make the tapping area include the checkbox text to make it more effortless to tap this area (**navigation/flow**).
- 3. Changing the placement of buttons nearer other elements (**principle of proximity**).
- 4. Changing the width of the dates summary to make it easier for people using magnifiers to read the summary (**navigation/flow**).
- 5. Minor change on the placement of help text so it will be easier for people using a magnifier to read it (**navigation/flow**).

Lessons learned

For this assignment, we learned that we need to be more clear and precise during the test session when we wish our participants to use assistive technology they are unfamiliar with. That caused some frustration but also uncertainty for the participant. As UX designers, we MUST at any time preserve our participants and let them feel comfortable with the tasks we ask them to do.

The participant suggested we should have started the test using assistive technology first. We agree with this suggestion, so when we test the usability on a bigger scale, we should not let the same participant go through the test several times. The data we collect, like time taking and effort, can be "polluted" and lead us in the wrong design direction.



Picture from <u>Unsplash</u>

References

Creating an accessibility statement

Phone number fields design

Country selector

Redesigning the Country Selector

Button placement on forms

Google's Material Design