Hidden - an app analysis

exploring the locative media application Hidden and its UX / UI

HØGSKULEN I VOLDA

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What is the goal?

As part of the Web Documentary course, the task was to conduct a methodical analysis of the app Hidden. Various methods were used to critically examine the UX and UI design of the app, identify problems and develop new proposals for solutions. In the latter aspect, we limited ourselves to the core problems that we found out during the method analysis. We will also propse some alterations to the existing interface to enhance usability, design for the appeal and overall UX.

The Team

Rosie Kyle

Friederike Schwenck

Eirik Fausko

Rosie was responsible for the Nielsen method for the User Interface.

Friederike handled the pedagogical functionalities with the Walkthrough method.

Eirik worked on the appeal using the worthwhileness method.

Together as a **team** we assembled the report, evaluated our findings and developed new ideas for solutions.

User Interface

Evaluating the user interface for Hidden proved that the app overall is very simple, and self explanatory to use. However a few problems did arise. We used the Neilsens usability heuristics rating scale to measure the extent of these problems. For example, when clicking on a group of POIs, it very frequently takes you to a part of the map that does not display all the POIs that it should. Primarily when clicking on a 100+ icon, we rarely were shown more than 60+ POIs. The impact of this problem is rather small, yet irritating, because it means the user then has to zoom in and around the map with their fingers to find the other POIs. We **rated this problem a 2,** as it should be fixed yet does not compromise the use of the app.

Secondly, the icon used for the categories is the same icon that is used for the different layers in google maps. This can cause some confusion because people are very familiar with google maps and its functions, meaning the user may assume the icon will lead to something different. However, this is a one time problem, because once the user has established what each icon represents, they can clearly see that it takes them to different categories and not different layers. Because of this we rated this **problem at a 1,** as it is not essential to be fixed but would be a slight improvment to the app.

When trying to use the AR function, there was no link available when at the location, which is the main point of the App. Due to this major misfunction we rated the **Ar usage a 4.** The app wrote to go to the location to "find out more" suggesting there we would be able to get access to the Ar function, but when we arrived to the location it did nothing but add an extra sentence of information, which was also in Norwegian despite having the settings set to English.

Rating scale	Severity of usability problem
0	I don't agree that this is a usability problem at all
1	Cosmetic problem only: needs not to be fixed unless extra time is available on the project
2	Minor usability problem: this should be given low priority
3	Major usability problem: important to fix so should be given high priority
4	Usability catastrophe: imperative to fix this before product can be released

Pedagogical functionalities

Method

To evaluate the pedagogical functionalities of Hidden, the so-called walkthrough method was applied for the user test. This involves defining usage scenarios and tasks for the test user such as registration, everyday use, and specific use cases to complete in order to test and analyse the user-friendliness, accessing features or functions, and discontinuity of the app (Light, Burgess and Duguay, 2018).

The test user was presented with the Hidden app, in which they were to move around freely as well as being guided through the app by means of instructions in order to uncover possible hurdles and questions and to obtain other feedback. To ensure a structured approach to the user test, a guideline was developed on the basis of which the observation and questioning was carried out. The test user was first given time to explore the app and its functions for themselves. If certain areas or functions were not discovered, questions and practical tasks were posed.

All relevant aspects of the test were noted in bullet points and evaluated, but only briefly summarised here due to capacity constraints.

Walkthrough method: guideline

User Scenario
You are a Norwegian tourist in Volda and here for a few days. You are not quite sure what else to do here besides hiking but want to explore a little bit more of the town. Your friend has recommended you to download the Hidden app. You are using the app for the first time and have already downloaded it.

Registration and entry:
Task 1 (general)
- Open the app
- Go through the registration process
- Explore the app /4 main icons (hidden icon: change location; search engine; layer icon: categories; zoom icon/ location)

Everyday use, functionality, options and affordances:
Task 2 (map features)
- Take a closer look at the map. Zoom in on a) your current location or b) any location of your interest and explore the icons shown on the map.
- (Incase this is not clear yet: What do the number icons tell you?)
- What happens/ changes when you zoom in further?
- What content do you see when you tap on the icons / POIs?

Task 3 (AR Feature)
- Scan the QR-Code: What do you see? How does the QR work?
- What happens when you move the camera? How does the AR-feature work?

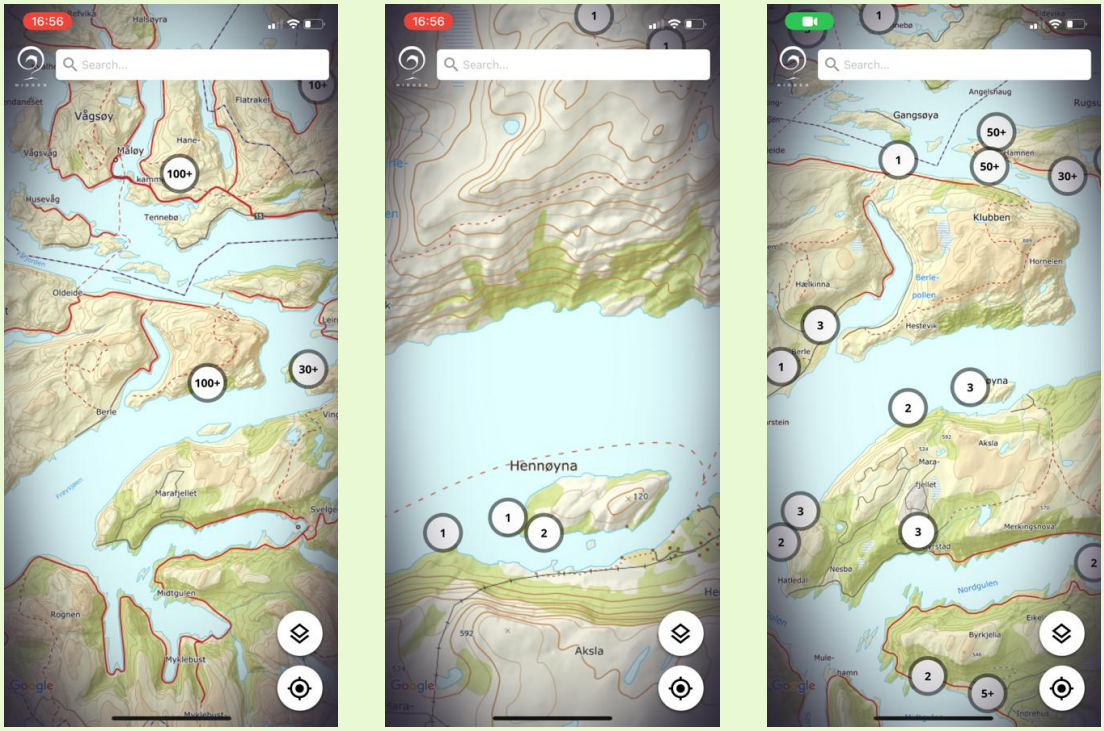
App suspension, closure, feedback:
Task 4
- What did you (not like) so much?
- What was confusing to you?
- Where did you have the most difficulties?

General feedback

The analysis of the answers generated from the walkthrough method shows: The Hidden app works well in general, has a clear structure and is very user-friendly. The user can learn how to use and experience the app, its functions and features quickly.

However, the user argued it did not always feel like a very **smooth experience**. The user feels like the amounts of POIs (points of information) in the map-feature are overwhelming at times and would prefer more congregations for smaller regions when zooming in on the map. These findings emphasise our previous analysis of the user interface.

To the user it is not always clear why some POIs refer to a certain category and is confused by the definition of for example “cultural heritage”, when taking a closer look at the content of specific POIs.



When tapping on one of the POIs (left picture), the user will zoom in very closely to specific, single POIs (middle picture). However, the user wishes to first get a broader overview of the area as shown in the right picture where the user zoomed out a little bit.

Problems

One feature that should definitely be improved is the consistency of the language used within the app when choosing English as the preferred language (since some content is still being shown in Norwegian). Therefore, the question of who the primary target group is, should be re-evaluated. Incase the target group also includes tourists from other countries than Norway, this issue needs to be fixed in near future developments.

Due to the fact that the AR feature did not work during the visit of the one and only POI in Volda, this area of the app could unfortunately not be sufficiently examined and evaluated. The user could only see that the one difference from being on site was that more info text could be accessed in the app.

This screenshot was taken while the user had set the language to English.

> *Why make it an interactive app when you can only really use it when you are on location? Why not have more interactive features for when you are not on site but want to know more about a certain place beforehand or when you are not able to go there?*

The findings of the walkthrough method and the feedback of our test user will be taking into consideration in the second part of this paper and, together with our other findings, used to make new suggestions for the Hidden app.

Appeal

Time spent

As we see it there are two main types of time-spent. The first type of time in-app is spent if a user wants to enhance their travel experience on location. This time spent would usually align with a user that wants to have some sort of interactive locative storytelling experience, either through a gamified narrative, or through AR animations (sometimes both). The user would then open the app after having planned a trip to the aforementioned POI.

The second type of time-spent is the type of user that wants information about a certain area or POI. The user would interact with the map through browsing and could look for small stories without having to be in-situ. Here the app works more like an pedagogic/ informative tool rather than an experience-based one. These two types of users can often overlap.

Public connection

The contents of the Hidden app are of interest mainly to tourists, hikers and explorers often with an interest in mobile-technologies and local history. As the POIs inside the map interface are very varied and selectable it creates the possibility of a varied content experience according to who uses the app. One might find that the “cultural heritage” category is interesting as the majority of POIs within that category are mainly textual and rather informative. They can be seen without being in-situ. On the other hand, others might be more inclined towards the more technologically advanced categories that include AR and gamified content that should be experienced in a certain location.

Normative Pressures

This dimension is not entirely applicable as the Hidden application is rather unique in its approach and contents, it is not a standard informational tool, or rather, a tool for extracting information, but a multi-faceted application. It is also worth mentioning that we did not have access to the backend functions nor analytical information during this process so we could not see the apps reach, popularity, reviews etc. What we can mention is that it would be probable that like-minded people within the apps target group would most likely recommend it to others as there is a lack of apps offering the same product, and no other with the same publicity-reach, especially in Norway.

Participatory potential

Without looking at the POI based content of the app, the participatory potential is rather limited. There are no “share functions”, no hyperlinks to social media and no “friend/follow” feature. One might argue that the experiences the app facilitates are between an individual and nature, so there is no real need for a more advanced interface that allows for such features. On the other hand, if a collective is planning to travel to certain POIs beforehand it could be convenient for planning/logistical reasons. Simultaneously, it is clear that the POI based contents of the app are innately interactive, as they push the users to get out in nature and have AR, gamified or audiovisual experiences where they become an active participant in the storytelling through the locative media.

Price

As of right now the hidden app is free to use and does not include content behind paywalls nor subscription fees. However, the webpage includes a form where one can apply to add points to the map, either one or 10 points or indefinite points during one or three years. This is rather costly, and is possibly a price a person that is not devoted to the app is likely to pay for. This could conceivably limit the appeal for a lot of people with less “interest”, like one time users of the app and people with less economic means.

Technological appeal

Its technology is interesting especially for media researchers and academics, as it challenges traditional linear and “static” storytelling. Its intended use is for hikers and tourists to have a more interactive and dynamic experience, through AR layers on top of a smartphone's quality camera. It has technological appeal because it is innovative and offers a new take on a very Norwegian tradition, hiking, and challenges both creators of audiovisual content and informative/ educational outlets.

The app's interface without the AR content does, however, not scream of technological innovation. Aesthetically it does not mimic the simplistic style of Danish design furniture or a sleek Apple product. Younger people might feel the design is a bit “vintage”both in the app and logo design. It could be argued the inn app design is create to induce the mystic and folkloric ambience, however, we feel like this could be designed in a more modern and simplistic manner.

Situational Fit

The application is meant to be used in rural areas. The reception could be interrupted in certain areas of Norwegian nature with tall mountains that could intercept signals. If the applications AR contents are stored locally in the app then this is not a problem, but if it uses cellular data to download content it could be seen as a challenge. Norway is famous for its well-functioning and peripheral reach of cellular data far into the wilderness. This could, however, depend on the operator one is using. Secondly, the modern mobile phones battery capacity could be an issue. Some of the smartphones are susceptible to reduced capacity during harsh weather.

Ideas for improvement

Having analysed the app, we came up with the following ideas for improvement:

- Use more/smaller congregations when zooming in on the map
- New icon for “category”
- New logo design
- Features to interact with community
- Directions link embedded to exact locations
- Different colour scheme/more modern design
- Share function avaliable
- Consistent lanuage use (when english is selected, everything should be in English)

New solutions for Hidden based upon the evaluation

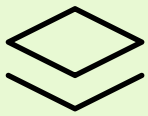
A next step for future developments, that can be concluded from the walkthrough method, could be to integrate more interactive features within the app. Those could also be used when not being on site, so that the user can immerse him/herself further into the story of Norway's hidden places. Especially having the AR-feature on hand could be a solution to integrate a more visual approach to improve the POIs and its content.

Another improvement that we believe would benefit the app would be including either a link to an app to get directions to the POIs, or directions embedded into the app itself. When walking to the location to test out the use of the AR, we had to use Google maps to find our way there.

It can also be said that, even though interactive features like gamified AR content linked to geographical features are an integral part of the application, the end user to end user interactiveness is lacking. Primarily there are no share-functions, so a user cannot communicate the POIs to others. Neither inn app nor through a third party, making it difficult to have a shared or collective experience.

Our final point of constructive criticism is to make all icons unique and more clear what they represent. As stated in the user interface paragraph, changing the 'categories' icon to something different than the google maps 'layers' icon would be beneficial for not mistaking its use.

Category icon



The old icon can be easily confused with the well known functino of the Google Maps "layers" function (left hand side). We suggest to use an icon that resembles a common known "filter" or "list" symbol (right hand side).

New icons & logo

In our point view, the Hidden logo does not have enough of a unique selling point. To create greater recognition, we are proposing a new design, being the outline of a troll to emphasise the historical aspect, as well as hint towards the curiosity to discover hidden treasures.

The existing logo might not carry enough connotations to the mystic nature of the contents, and even though it uses "a pin" so the reader might associate it with geo-location, we think the design is too vague.

New icon: external link

This icon opens up the possibilitiy to share a POI with others.

New pop-up menu

When tapping on the new external link icon, this pop-up menu appears. This add-on gives the user different options for sharing the information.