GO' Thentic

Final Report 02809

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1 INTRODUCTION (CH, KS)

The curiosity of traveling usually occurs for people as a result of an interest in obtaining a cultural experience. Despite that, the reason for traveling can be different for each traveller. For people travelling due to another purpose than a relaxed vacation or a long-term stay, it may be hard to get the most out of the short stay. For this group of travellers the app Go'Thentic seeks to solve the problem of getting the most out of a visit. The needs and insights of the users are found through an immersion phase and scoped towards accessibility such as directing around tourist traps and suggesting authentic places that reveals the intimate culture of the destination according to the interests of the user. The app guides the user towards a personal and authentic experience of the destination instead of the tourist traps and the usual attractions while still taking the duration of the visit into account [3].

2 RELATED WORK (CH,KS)

Considering apps that are already worked out to solve similar problems we found PolarSteps [5], Yelp [7] and Tripadvisor [6].

The app Go' Thentic differs from the 3 apps in several ways. PolarSteps focus on documenting and sharing longer trips among users who are connected as friends on the app and can be considered as a social media with personal interaction. Yelp is a platform for recommendations of all sorts of things such a car washes, cleaning services as well as restaurants. The Go' Thentic app differs from both of these in several ways. Comparing PolarSteps and Go' Thentic, Go' Thentic does not contain personal interaction between 2 parts as PolarSteps offers. Therefore Go' Thentic can not be considered as a social media, but as a community of authentic short-term travels holding users' contributions to different experiences. Lastly, Tripadvisor and Go' Thentic are more similar but the difference in authenticity is astounding as Tripadvisor creates recommendations of tourist traps and greatly visited places in comparison to Go'Thentic.

3 CUSTOMER SEGMENT (CH,KS)

The customer segment is defined as people who are visiting destinations for a short period of time. Specifically for people having 1 to 4 days to visit a place and want to experience the authentic culture using minimum amount of time. Examples of groups on our customer segment are flight staff, business people, cruise people, exchange students, etc..

Nevertheless, the app can be used for all people seeking to obtain an authentic experience both at a new destinations but also at their hometown.

4 ITERATION #1 (IB,IR)

The initial stage was the ideation stage where the group had a brainstorming session for different ideas on how the project could be scoped. We wanted to have a very specific market segment to focus on, and therefore decided to solve the problem of authentic travels for people doing short-time visits. The ideas we got from our brainstorming session can be found in Appendix I. For the initial iteration, we had an initial idea that we wanted to get validated. We created a lean canvas to get an overview over the situation - the problem, solution, what unique value do we offer, and the market segment. In addition to the Lean Canvas, we had created a user story map (USM) to make our ideas and solutions from the user's perspective concrete. Finally, we also created a landing page to visualize our product in order to validate our idea and to receive some feedback early on in the process. The landing page, lean canvas and USM from the initial iteration can be found in appendix F,G and H.

Our Initial idea was validated through two feedback sessions:

(1) A poster session with 8 other groups
(2) A small-scaled interview with 5 test subjects

In the first part we presented the key points of the lean canvas together with the landing page and received feedback from other groups. The second part was conducted entirely through the landing page. Each subject was asked to look at the landing page and identify the purpose of our product. Following this, the subjects were told what we had in mind for our product, and were then asked for additional comments on how to improve the landing page in relation to our ideas.

While the testing showed that the scoping of the market segment was great, the product and landing page could be polished. It was evident that the landing page was too generic and could not clearly communicate our product and its values. Other feedback points were mostly related to the graphically elements of our landing page, such as the amount of text, size of text, icons etc. The main takeaway from this iteration is to keep the chosen market segment,

but to keep iterating on the product and landing page to properly address the users' pain points. The feedback from our poster session and the interviews can be found in appendix J and K.

5 ITERATION #2 (YW,IB)

Following the validation of our initial idea, we wished to decide on some more specific designs and flows of our product. The main frames of our application was narrowed down to four frames to support the functionalities defined in the initial USM from the ideation phase in the previous iteration. The four major frames were defined as the *Profile* page, *Homepage*, *History* page and the *Favorites* page. While designing the first draft of the application, several flows of the application were explored. It was deemed essential to consult the user on their preferred flow, and we decided to narrow the possibilities down to two different flows:

(1) A classical drop down/side menu bar to switch between major frames
(2) A navigation bar to switch between major frames

The point of investigation in this iteration is therefore:

Do users prefer menu bar or navigation bar?

In order to investigate the use of a menu bar versus a navigation bar, two interactive prototypes were created in `figma`. The prototypes were made as rough sketches, where the flow was in focus rather than the design of the application. For instance, the color palette of the prototype was grey to steer the test subjects' focus towards the flow rather than the design itself.

The purpose of the test session was to investigate on the satisfaction level of the application. In particular, we wanted to focus on how many miss-clicks the test subjects had while carrying out specific tasks as well as how the subjects felt while using the apps. The test session was carried out with 5 different test subjects and can be divided into the three following parts:

(1) Thinking aloud test using the APP
(2) Task based test in the APP
(3) Follow-up questions for the APP

The test results show that, while there was approximately the same amount of miss-clicks for the two prototypes, all five test subjects preferred the navigation bar flow to the menu bar flow. Therefore it was decided to continue to iterate on the flow with the navigation bar. Aside from the feedback on the flow, other feedback points were also identified. Some feedback points the test subjects had in common were that the *add recommendation* functionality was non-intuitive, and that they would like a map to visualize the distance between different places etc.. For a more details of the test session, the feedback from the session and the prototypes, please refer to appendix P.

6 ITERATION #3 (IR,CH)

The third iteration was dedicated to give the app more personality and to better answer the user needs within our targeted customer segment. We decided to add pictures and colors to the executable prototype. We selected the color green to symbolize authenticity and to give a relaxing vibe to the app. The landing page was also updated based on the feedback from the previous iteration. The key point we wanted to investigate is the emotional impact and engagement from our application on the test subjects. The wireframes and landing page used for testing can be found in appendices Q and T.

In order to validate the theme of our application, we planned a test session with 5 different test subjects. The session consisted of a thinking aloud test, followed by a standard usability questionnaire. The thinking aloud test was used to test the flow of our application, whereas the questionnaire was used to gain insights on how the user felt when using the application.

From this validation, we received a lot of feedback regarding the UI elements. For instance, the users did not like the green colors we were using, and multiple test subjects thought that the application was targeted for hikes and nature experience. Aside from the color scheme itself, we also discovered that the contrast between colors was too low, some icons were not visible enough, and the text was too small to read. Feedback received from this test session can be found in appendix U.

7 ITERATION #4 (KS,YW)

Following the feedback and validation from iteration 3, we changed the color scheme to a more contrast filled blue/white/aquamarine theme. We used a website to determine that the theme would work for different types of color blindness and that the contrast was great enough [1]. The icons and amount of buttons were changed so the text below icons was readable and the buttons for the time selections were changed to sliders. The way *interests* is chosen was also made more clear. We remade the favorites and star system to separate the two and make each more distinct. Additionally, we also added notifications as a micro intervention to encourage users to review the places they have been. For the fourth iteration we wished to validate not only the usability of our application in general, but also whether the product could provide value to our customer segment.

In order to validate our product with the relevant user segment, an anonymous online questionnaire has been set up. The questionnaire was sent to multiple acquaintances whom we knew would often travel for short duration, for example due to the nature of their work. In the questionnaire, we validated our idea through questions regarding our landing page, but also the general value our application provides through our executable prototype. The questionnaire was filled out by 8 test subjects who all travel relatively often.

From the questionnaire, we discovered that our costumer segment is indeed interested in using the application. The landing page had clearly conveyed the purpose of the application, and our test subjects could appreciate the value the application provides for short travels. However, we did receive some feedback points. One mentioned the similarity of our application to competitive apps like Trip Advisor. Another suggested that the app should give more information about places, i.e. if there is currently free tables on restaurants. We believe this would be a nice addition to our application as it does seem to provide value to the convenience aspect, a major selling point of our app. Generally, our test subjects found the application valuable and the majority could see themselves use the application on future travels to find authentic places. Naturally, there are still more features we could implement to increase the

value we bring to our users. The results from the questionnaire can be found in Appendix E.

8 DISCUSSION (ALL)

By validation the customer segment early on in the progress, we avoided having to re-evaluate the customer segment, and could instead focus on iterating over our product. We had many ideas that we wanted to include in our product. One challenge we were facing is scoping the product to create a minimum viable product (MVP) which could bring sufficient value to our end-users. When designing our MVP we also had to consider the time limit. For example, we wanted to investigate the use of a multi device system to emphasize the convenience of our product. We were quite early to decide on creating an application on the phone since almost everyone has a phone, and they are easily portable. However, an idea is to include an interface for an app on a watch. In particular, we were thinking of creating the watch app as a complementary system using the control pattern from the 3C's framework[2]. The primary experience happens through the phone, but we could include a collection of activities the user has marked as favorite on their watch for them to switch between on the go, so they can easily decide their next destination. Furthermore, many test subjects have raised concern about how we obtain data for our recommendation system. We had an idea of creating a rewards feature to encourage users to review places. Due to the time limit, we discussed which rewards would be appropriate and coupons was the one we agreed upon, but we did not have the time to implement it. We have also found that local individuals might not be as hesitant to sharing their opinions as one might expect [4]. For all iterations we received a lot of valuable feedback from our testing. The testing often had many test subjects mentioning the same feedback, which made it quite easy to decide on changes for the product. However, sometimes the users would also disagree with each other, resulting in conflicting feedback. These cases would be solved by either listening to the majority, or re-validating the parts in detail to receive further feedback.

9 CONCLUSION (ALL)

Throughout the project, we have utilized design thinking and the iterative lean process to create a valuable product for our customer segment. Tests and user validation has been an essential part of our process. In most cases, we were able to notice what feedback points were in common, thus also what we could change for the next iteration. However, we also experienced that it is not possible to take every opinion into consideration.

We believe that our product is sufficient for a minimum viable product and addresses major pain points for our users. However, there are other nice-to-have features that could be quite beneficial for our customer segment. This further stresses the importance of the build-measure-learn cycle and lean UX in relation to developing a new *and* to maintain products. It is unquestionable that we will have to continue to iterate on our solution to stay relevant and to keep providing value to the customers in the future.

10 CONTRIBUTIONS

While team members may have focused on a specific artefact in a given iteration, each team member has contributed equally to all artefacts throughout the iterations and the completion of this project.

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V INDIVIDUAL REFLECTION REPORTS

V.1 Usability and User experience (CH)

The concept of usability covers informative feedback and prevention of errors when a user interacts with a system. The term usability is built from the situation of users interacting with a system in a specific context in order to achieve a number of goals. This is exactly described in the learning outcome of the course as identify user-needs and -problems in relation to the customer segment meaning that you need to understand the context of the costumer segment for who the system is made. The 7 stages of action describes each step for making sure of usability of a system originating from 3 overall stages: goals, actions, and outcome. These 3 stages help in modelling the user-needs hierarchal and corresponds to the learning outcome of the course modelling user needs hierarchical by goals, activities and tasks. The measure of the usability of a system is divided into 3 assets namely effectiveness, efficiency, and satisfaction. To achieve user satisfaction the 10 design heuristics are listed as 10 important statements to consider when implementing a system. Visually the system should take the Gestalt principles into account for completing the design heuristics of recognition and consistency. The 2 statements recognition and consistency are what user experience is made up of along with usefulness, emotional impact, and meaningfulness. Generally described as serving a purpose for the user. It adds up to the result of the users motions and sense of product on all levels. Considering the value creation of user experience for the user, it contributes to a better user experience in terms of delivering a goal in a way of focusing on the user journey and remaking the system by learning from the users and adapting to the users. When delivering a new product, the temporality of experience helps describing the different phases that drives the user experience and the expectation of the user when interacting with the system.

From the beginning of forming the system for the assignment Go Thentic we focused on the functionality of the system. This was done by testing if all intentions were achieved by the possible actions that the user could to make. The functionality corresponds to the design heuristics of user control in sense of freedom, error prevention and flexibility which we solved by adding a navigation bar for easy accessibility to all screens of the app. We also found it important to focus on long-term usability for the user (which is found in the incorporation phase of the temporality of experience). This was achieved by implementing some of the important factors for our specific customer segment such as creating a profile and saving destinations that the user finds exciting for preparation of the users next visit and making the destinations easy to find again when needed. The incorporation phase and the heuristics stated the goals of the system clearly which made it much easier to handle the assignment as the focus on what should be achieved and how it could be achieved was very clear. Through each iteration the factors of user experience were reevaluated which made the bad and good implementations in the system easy to spot and thereby change for creating a better user experience when using Go Thentic app.

References

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V.2 Dark Patterns and Ethical Design (KS)

Dark patterns are a series of patterns designed to be intentionally misleading, cause users to spend extra money or more time, give up data, and make things difficult. The paper The Dark (Patterns) Side of UX Design describes five overall categories of dark patterns; Nagging, Obstruction, Sneaking, Interface Interference and Forced Action. These different categories all work towards a common goal of earning the company more money and do not have the user's needs in mind when designing. Forced action and Interface Interference causes the user to have few or no choices or brings confusion when given choices. This can cause the user to give up information, spend money or perform a specific action to continue. Nagging can include pop-ups and other distractions that cause the user to lose focus, and often it is not possible to stop the nagging. Sneaking is a way of hiding costs or information from the user. Obstruction is making the flow more difficult to make the user spend money to access a premium service or having things preselected whilst being hidden. On the other hand, is ethical design. This design practice questions the designers' biases and has the users' ethical needs as top priority. This practice gives power to the user by ensuring that the user has choices, and that the app has transparency in terms of data storages and usage. It is also aims to make the product usable by many different types of people by having a diverse target group. Ethical design also keeps the user's well-being in mind by avoiding triggering content and offering support. It is overall the idea of benefiting the user instead of only benefiting the company.

Ethical design and Dark Patterns are as said previously almost opposites. When designing ethically we wish to avoid the dark patterns and instead design without misleading or manipulating the user. With ethical design one can use the Expert(user) Checklist to ensure that the design is ethical. Design principles ethics and biases are part of the learning outcomes. Learning about ethical design and dark patterns is important so we in our future work avoid the problematic designs and instead design with the user in mind. In our assignment we struggled with choosing a colour scheme with enough contrast and a proper font size, as we received feedback concerning this during iteration 3. This could cause problems for those who are vision impaired, which made the app less inclusive, so we improved both. Something we could have changed was our level of transparency. Our privacy notice and data storage information are hidden within the settings. Not deeply hidden, but an added pop-up when a user first opens the app would increase the level of transparency. We did not test our ethicality throughout the process, which is something we should have done. This could be done by using the Expert Checklist or a Peer Testing. Our product does

not include payments or ads, but if it was to be scaled that would probably be necessary to earn money and keep the platform going. This would be an area where we would have to avoid dark patterns, such as sneaking, to keep our design ethical. This would ensure Go'Thentic always has the user as the top priority.

References

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V.3 Elements of Value and Design Heuristics (IR)

In average an app has 8 minutes to deliver value to a user, else it gets deleted. (Bækgaard) Even though elements of value can differ for each individual, elements of value and design heuristics, cover methods, to help us deliver value and a nice experience to the user segment. First of all the definition of value is often refereed to as $\frac{\text{quality}}{\text{investment}}$. There are some methods to categorize values. One method relates to Maslow's hierarchy of needs, the so called "elements of value pyramid". The pyramids foundation is made up of functional needs, then comes emotional needs, life changing and on top social impact. (Almquist 48-51) Design heuristics is 7 (10) fundamental rules in user centered design. Seven of them are visibility of system status, match between system and real world, user control and freedom, consistency and standards, error prevention, recognition not recall, flexibility and efficiency. (Nielsen) The rules are about creating a system that prevents errors, allows the user to understand whats going on, and sets the user in control. So you could argue, design heuristics gives the 'quality' in the equation of value, stated above. To create elements of value these 7 (10) design heuristics needs to be considered. For example using the theory of design heuristics of preventing errors, you would in the "elements of value pyramid" reduce risks in for example an airplane navigation system. Avoiding errors in an airplane is of great value.

This relates to the overall learning outcomes of the course, in the way that it is important to analyze, which values that are needed to the system. In relation to our Go'thentic app, we really focused on the 'functional' time saving aspect for our user segment. As people who travels for a short amount of time, values their time. By recommending authentic places, they can get the most out of their time, and avoid crowds. In terms of improvement, we could have made a better system for choosing dates, when finding new experiences, to prevent errors. We could also have focused more on the 'life changing' part of going to authentic places, and make it more of a cool identity to the user. The purpose of the navigation bar in the bottom of the app, is to make it easy to navigate throughout the app, and increase the visibility of system status. Our app might also face a cold start, as there will be a lack of recommendations of authentic places in the beginning. Therefore value to the user will be missing. Here we thought of bringing in emotional value by giving rewards if a recommendation is made. If this isn't thought through and taken care off, the app could be deleted within the 8 minutes. To figure out what would work in this case, and what brings most value; emphasizing the user segment first and testing the idea is a great option.

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V.4 Minimum Viable Product and Lean (YW)

How can businesses stay relevant, attract new customers and retain current customers? Design thinking and lean is a user centered mindset, and essential to keep learning and to stay relevant to the market, especially in the modern society where trends and fads are changing rapidly. Inspired by the agile methodology, lean is an iterative process where the build-measure-learn cycle plays a central role in validating hypotheses and obtaining data through testing with end users[4]. This iterative approach allows us to identify issues with our product early in the design phase rather than late. Put simply, we want to *fail early, fail fast* to minimize the loss of resources [1]. Lean UX provides tools such as the Lean Canvas to identify the customer segment, users' pain points and needs, and forces us to reflect on what value we can bring to our users [5]. Lean UX is tightly related to the principle of a Minimum Viable Product (MVP). An MVP is a realization of the core principles of your product that does *just* enough to cater to the user's needs but nothing more. Creating an MVP is a great way to confirm the value early in the process, as we can utilize our limited knowledge to learn something new by creating a tangible product early on the process that users can interact with and evaluate [2].

The learning objectives relate directly to Lean in the sense that the core methods of the course are lean methods[3]. For example, the Lean Canvas has been used to identify user needs, pain points and the unique value proposition of our product[1]. Furthermore, with a lean mindset and by utilizing the build-measure-learn cycle, we have created and validated a minimum viable product [2].

[1]Learning objectives: Identify user needs and pain points for a market segment. Optimize unique value proposition (UVP) using a lean business model canvas. Describe (additional) key processes that are necessary when developing a digital product: Agile, Lean and Build-Measure-Learn

[2]Learning objectives: Design a minimum viable product (MVP) based on iterative UX prototyping using Build-Measure-Learn cycles. Validate a minimum viable product (MVP) using hypothesis driven design methods

Both Lean UX and MVP has played an essential role in the creation of our product in the assignment. We validated our ideas initially and with every iteration to obtain valuable feedback and detect mistakes early. For example, we decided to compare a flow using a classical drop-down menu, and one with a navigation bar. The two flows were designed as interactive prototypes, but details had purposely been omitted both to allow the test subjects to focus on the flow itself, but also to save time from styling the application. Had we not validated the flow early, we might have discovered later on that the flow was outdated. This could have introduced new pain points to the users, and we might have had to re-design major parts of our application. By continuing the build-measure-learn cycle, we eventually finalized a product as our MVP. One challenge we encountered was to define the MVP. As designers, we tend to have many ideas and features we wish to include in the MVP, and it was be quite difficult to define what functionality is essential to include in the MVP, and what could be saved for the future. However, I do imagine that this was also partly due to the time frame of the project. If we were *really* looking to launch our new *Go'Thentic* application, the process would not halt with the deadline of the assignment. Rather we would continue the *lean*, *iterative* process to increase the value we can provide our customer segment.

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V.5 Qualitative and quantitative testing methods (ID)

To get a better understanding of the user experience it is valuable to do validation of your design, as learned in week 4 and 5. Validation of your design can be done by testing, both quantitatively and qualitatively. Quantitative testing is on the basis of numeric and metric testing, such as number of errors, satisfaction rates and task time. This reflects whether the design is easy to use or not. While quantitative testing tells whether a design may be usable or not, it can not tell which problems users experienced. Qualitative testing is based on the observance and experiences of people and the researchers can get insights about the user experience. It is also possible to let the test persons verbalise their actions, so researchers can ask them tho think aloud or ask them follow-up questions to get better insights, but for qualitative testing the researcher must pay attention to details and sometimes it can be hard to interpret. Quantitative and qualitative testing can be done together, in order to strengthen each other and get a holistic view on the positive and the negative aspects of your design, in this case an app. In this course we had to create multiple apps and interfaces by means of a prototype, which is a tangible way to test a design. A prototype is a mock-up to let people test the design in order to find which aspects of the interface should be adjusted or are nicely working. Therefore, we made use of validating, quantitative and qualitative. In this way we make an app, test whether it works or what the test persons like about it and improve it. Basically it is part of the iteration process to learn about your design and understand user needs. It has provided value to the present assignment because of the choices we could make based upon the feedback of the test persons. In iteration 1, we tested whether people got the general idea of the landing page by a poster session. And a small scaled interview. It gave us insights in how to iterate further. In the second iteration we conducted a thinking aloud test (qualitative testing method), we counted the amount of miss-clicks (quantitative testing method) for two different flows and asked follow-up questions (qualitative testing method). From this validation, we concluded that a navigation bar was more preferred in our design, and it can be concluded that the testing gave insight in the user needs. In iteration 3, we conducted a thinking aloud test (qualitative) in addition to a questionnaire with a scale (quantitative) about the usability of the persons with the app. This gave us insight on how to improve the current systems, explore the possibilities within and polish the design. In iteration 4, we tested the usability by a thinking aloud test and we validated our customer segment by means of a questionnaire all the test persons thought the app would have value, and we can conclude that our app is right for the customer segment. We concluded that by validating the customer segment early, we could focus more on iteration of GO thentic. Additionally, we concluded that testing quantitatively and qualitatively in combination gives a holistic view on the design. However, sometimes the response of the testing was indecisive as the test persons had different opinions. Then we had to validate our design in a different way. In summation, validating quantitatively and qualitatively every week was essential for iterating our design and we really got insights about the user experience of it. Validation functioned as a guideline in our process, and it was of huge value.

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