Service Systems Design

AALBORG UNIVERSITY COPENHAGEN

MASTER THESIS

Title: **Breaking down the silo mentality within bigger organizations.**

A Case Study of New Service Development

at Aalborg University, Copenhagen

Semester: 10th

Project Period: March 2018 - May 2018

Collaboration with an Organisation:

Aalborg University Copenhagen

Copies: 1

Pages: 100

Supervisor: Amalia De Götzen

Finished: 31.05.2018

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Abstract

This thesis has examined the topic of breaking down the silo mentality within bigger organizations. The research uses a case, which addresses the communication problems Aalborg University Copenhagen experiences in informing the incoming international students about the available services and everything a new student should be aware of before arriving in the city. The case was conducted from February to May 2018 and was concluded with an interactive prototype of an information system designed especially for Aalborg University. The service concept was tested with different stakeholders and labeled as a strategic communication tool, which could be extremely beneficial to all involved parties. It was delivered to Aalborg University for further testing and evaluation to find the best suitable way of implementing it within the current IT systems of the university.

Based on the case, the thesis discusses the negative impact of the silos created inside bigger organizations as well as provides recommendations on how the silo mentality could be tackled in order for the employees of such organizations to work together towards a common goal instead of avoiding responsibility and blaming other departments for their problems.

Contents

Acknowledgements

To accomplish and complete this mater thesis, I would like to thank certain people.

Anne Sand, international advisor,

Helen Pedersen, student counsellor,

Deborah Vlaeymans, international accommodation officer,

who have been my primary contact people from Aalborg University, campus Copenhagen, for the numerous emails and meetings, where they contributed with expertise, feedback, guidance, prototype testing and ideas from the first meeting to the very last.

Amalia De Götzen, supervisor of the thesis, for the meetings, inputs, feedback and valuable directions until the very end.

Anni Lunø, study administration of Aalborg University, campus Aalborg, for the immediate responses, valuable information and connecting me to the right people.

Simon Clemmensen and **Catrine Boas**, study environment committee, for their contribution during the testing of the prototype.

Jacob Stampe, **Linh Huynh** and **Lars Olsen**, student guidance, administration and IT at Aalborg University, campus Aalborg, for the extended prototype testing and valuable feedback on the technical implementation of the service.

Lubomir Mladenov, **Mihaela Koseva**, **Stilyan Paleykov**, **Martin Vadanov**, for participating in two workshops and contributing to the whole concept of the service.

To all the students in Denmark and Bulgaria, who participated in the discovery and developing of the service, for their feedback and individual stories.

Finally, I would like to say thank you to everybody else, who stood by me and supported me during this process, and became a part of this thesis in one way or another: family, friends and colleagues.

Learning Goals

Study Guide Goals

The following study goals have been chosen for the study program (Aalborg University, Faculty of engineering and science, Board of studies for Media technology, 2012):

- Must be able to work independently, to identify major problem areas (analysis) and adequately address problems and opportunities (synthesis).
- Must demonstrate the capability of analysing, designing and representing innovative solutions.
- Must demonstrate the ability to evaluate and address (synthesis) major organisational and business issues emerging in the design of a product-service system.
- Must be able to master design and development work in situations that are complex, unpredictable and require new solutions (synthesis).
- Must be able to independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility (synthesis).
- Must have the capability to independently take responsibility for own professional development and specialisation (synthesis)

Personal Goals

Moreover, to add up to the goals set by the university, I wanted to carry out the following:

- To accomplish a whole design process individually.
- To explore the analysis phase of my research and refine my technique for sorting through and gathering workable insight from qualitative research.
- To deliver an impactful solution, which will be essential for all international students coming to Copenhagen.
- To create a meaningful prototype of the service, which can give an idea of the impact of the solution.
- To challenge different departments within Aalborg University to work together towards a common solution, which will benefit the students, the staff and the university.

Introduction

Service Design has created an enormous consideration over the past two decades due to its fast embracing by the business sector around the globe. To enable the design of proper services, the framework of the service design revolves around empathy and co-creation with the users, creative thinking, prototyping and multiple reshaping of the whole design process until all failures have shaped the right final outcome, satisfying the needs of all parties (Martinkenaite, Breunig, & Fjuke, 2017). The core of service design, design thinking, has the customer at its center, while the organization is placed second (Andreassen, et al., 2015). Different methods rely on design thinking like: user journeys, personas, service-blueprinting, rapid prototyping, etc, all of which play crucial parts in the design process and in the final products and services (Kahneman, et al., 2004).

To put into practice all learnt, I have chosen to explore an area, which has been problematic for big companies on a global scale – *the silo mentality* and more specifically: **Breaking down the silo mentality within bigger organizations.** (Gleeson & Rozo, 2012). The definition of *silo mentality* by the Business Dictionary states "a mindset present when certain departments or sectors do not wish to share information with others in the same company. This type of mentality will reduce efficiency in the overall operation, reduce morale, and may contribute to the demise of a productive company culture." (Business Dictionary, 2018)

As organizations expand rapidly, the risk of becoming bureaucratic and split into silos increases. The type of business and concrete projects the employees are engaging with can also have an effect on the formation. Moreover, the amount of interactions between the personnel, whether the employees like each other as well as whether they have the chance to communicate between each other affects the silo formation, too (Tett, 2015).

However, what are silos and who creates them? Silos originate from the human inclination to categorize the information around us – placing it into mental and social boxes. Being in the middle of endless amount of data, people and processes, we need a system, which can help us put everything in order. Therefore, placing what we perceive around us into boxes simplifies our lives to a high extent. However, we encounter an issue when the constructed model is no longer up-to-date, as external changes can occur at any given time. Another concern is when

the boundaries of this model become too strict and people stop sharing information, but instead see the processes as competition (Tett, 2015).

To tackle and get rid of this damaging organizational drawback, those in charge of the organizations are key for the solution. They have to assume the responsibility and provide its personnel the right mentality. However, very often silos originate from an inconsistent and indifferent management unit (Gleeson & Rozo, 2012).

Not being critical enough towards departments' low productivity, absence of creative thinking and solutions, proper onboarding of new personnel and the failure of employees to help each other, might cause long term damage to the company - allowing hate and helplessness to settle inside the different units. When somebody can determine the root of the problems, but is powerless to solve them because the company is stopping them, that leads to frustration. Addressing these issues is a job of the management, who have to establish an environment, stimulating the resolution of the problems instead of creating read blocks (Gleeson & Rozo, 2012).

Case

To explore the chosen topic of *silo mentality* from a more concrete perspective, a collaboration with Aalborg University Copenhagen (AAU CPH) was established. The challenge was to evaluate the available services at AAU CPH for their students as well as the problems the personnel has been facing for the past years.

Every year hundreds of international students are attracted and apply at the Danish universities and academies. One of the reasons is because the Danish educational system ranks third best in the world. Since 2005 to 2014 the number of international students in Denmark has increased with over 400% (Confederation of Danish Industry, 2016). One of the main reasons for this increase is the fact that the education in Denmark comes free of taxes for students coming from the European Union. Additional financial benefits like SU grant, housing subsidies, free healthcare, etc. also contribute to the rise of the number.

Unfortunately, very few of the incoming students are aware of what awaits them in Denmark. A lot of them use services of educational consultant agencies, which handles all documentation for them up to their admission. This by itself leaves the admitted students without any substantial information about their future life in Denmark and Copenhagen in particular. The students are unaware of how difficult it is to find housing or integrate in the country and very often arrive with false expectations (The Expat Study, 2014).

All that leads to hard start, increased stress, low performance, students dropping out along their studies and ultimately students leaving Denmark after they graduate from their degrees. Less than 45% of the newly graduated international students remain and work in Denmark 2 years after graduation, which poses a huge financial problem to the Danish government (Rychla, 2017). Since 2015 the government began cutting down the number of all higher educational programs offered in Denmark, from 15 000 to 11 000, which mainly affected the international student places (ICEF Monitor, 2014).

Aalbrog University is a huge institution with campuses in three of the five biggest cities in Denmark – Copenhagen, Aalborg and Esbjerg. Aalborg University's campus in Copenhagen was opened in 2012. Six years later, the international office is still trying to resolve the same

problems the international students have been facing from the very beginning. Despite the large number of events and different activities organized on site, the number of attendees is significantly low. Although various communication channels have been used, the link between the international office and the students is broken – the students are not aware of what is offered at the campus. They are not aware that the university can assist them with any problems they have, not only such related to the studies at AAU CPH – housing, job search, documentation, culture shock, etc.

The life of the international student in Aalborg and in Copenhagen is quite different. It takes a much bigger effort and longer time for the international student in Copenhagen to find accommodation and settle down, compared to the one in Aalborg. People find it a lot easier to socialize, find their way around the city and get familiar with the new environment when living in a smaller city. Unfortunately, Copenhagen is the biggest, busiest and most expensive city in Denmark. That poses a challenge for the international students and the staff at AAU CPH to assist them in the best possible manner. Furthermore, despite the differences of the cities, both campuses in Aalborg and Copenhagen use similar digital tools when assisting the incoming students. The management of Aalborg University is applying the same classification system at the Copenhagen campus, which works at Aalborg. However, both models as seen from above are extremely different, which leads to a number of complications for the staff of AAU CPH and the international students in the city.

In order to tackle this situation we need look at the conditions and analyse them from the bottom up perspective and thus, we might be able to break down the silos in which Aalborg University has been trapped (Tett, 2015). People tend to look at the world around them in their specific way and unfortunately label the different aspects as strange. (ibid). Nevertheless, all human beings are distinct and strange in their own manner. However, if we recognize the differences in the mental boxes (Copenhagen is different than Aalborg), a transformation can occur. When we evaluate the created situation by ignoring our own viewpoint for a moment and look at it with a different pair of eyes, we will be able to see different factors answering the questions why things are not working as they should and how the world around us has changed. Factors that have been neglected in the first place (ibid).

During the thesis I have been working together with different departments of Aalborg University Copenhagen (AAU CPH) – International office, International accommodation

office, Student counsellor department, as well as with the main campus in Aalborg - Study Administration, Study Guidance and the Study IT. The interactions with the representatives of the above mentioned departments have brought insight of the services offered to the international students before and after their arrival in Copenhagen. Moreover, I have gained understanding of the technical side - how the infrastructure is organized and what support processes run at the backend of these systems.

Each of these departments barely communicates between each other as each of them is too concentrated on addressing their own issues. Moreover, Aalborg is more than 400km away from Copenhagen, making it difficult for the personnel to interact on a daily basis from a purely physical perspective, unless something forces them to. Unfortunately, the whole organization has been setup in such a way that does not provoke mutual collaboration across departments (silos), which poses a threat. All these conditions contribute to silos creation inside Aalborg University. Nobody has addressed this issue until now and therefore the collaboration between departments has been poor in resolving problems, which require joined efforts from several places.

However, in order for that to change, the shift can come from the management, but it can also come from the bottom, affecting every single employee, who can realize the power of reaching out and collaborating with colleagues across different departments to improve processes, products and customer experience (Cran, 2014).

Theory and Methodology

In this section I will briefly introduce the theoretical and methodological approach used to form the thesis.

The aim of this thesis is to establish a solution for the international students coming to study in Copenhagen, which will enable them to accommodate better, faster and thus be able to focus on their studies and proper integration within the country. To be able to collect the required information about the needs and expectations of the incoming students, a contact with each of them needs to be established. Therefore, participatory design methodology will be used for the purpose.

Methodological Approach

The following section will describe the methodological approaches used to construct the thesis.

Design thinking.

Choosing design thinking as one of the approaches for the design of the thesis was logical, having in mind the co-design processes and the desire for creating an innovative solution. The mechanism of the design thinking allows converting the presented challenges into possibilities by using its human-centric methodology, which includes insights from social sciences, business, design and engineering (Plattner, et al., 2011). Design thinking helps in deciphering the composite relationships between ideas, people, places and events. It is a driver to innovation, which guides the strategic decisions and carries them through, thanks to forthcoming opportunities, but not former experience. It allows the imagination to go wild and thus construct the future of tomorrow (Mootee, 2013).

To properly assess the current situation and the problem at stake, the students' perspective in Copenhagen needs to be investigated. The aim is to gain knowledge about the culture, values, needs and expectations of these people and identify key problem areas, which need to be addressed. This will be accomplished by ideating, co-creating and developing solutions during the whole process. Being deliberate and clear while making decisions is an important aspect and the teamwork with the users and all interested parties will enable me to do so.

Design Process Model

There are many ways to manage the process of design. However, in order to have a structure to follow during the design of a new service, a design process model has been chosen for the task. It allows to produce ideas and develop them. The Double Diamond process model (fig.1) will be used for the purpose (Design Council, 2005). It will allow me to organize the whole process by determining the needs of the users and therefore shaping them into a solution.

The Double Diamond is composed of four stages - discover, define, develop, deliver, which will allow me to advance the design process using continuous improvements of the concept by collecting new or improved ideas and experimenting with them (Design Council, 2005). It is important to emphasize on the flexibility, which allows new ideas or information to be included in the design process at any of the stages. The very first phase will guide towards the right direction depending on the gathered information. It is not necessary to begin designing right from the beginning, instead that process will follow naturally once the needed data is gathered, so that the solution answers to the needs of the involved parties. Empathizing with the users is in the foundation of the human centered design approach (IDEO.org, 2015). The aim is to develop a solution, which is also a holistic, so it takes into consideration not only the user, but also the organization and its backend resources and activities (Stickdorn, Schneider, Andrews & Lawrence, 2011). In the Define phase the gathered information will be examined and discussed in attempt to understand the real problem and thus frame a final problem formulation. Different ideas might be considered in attempt to uncover the best one – divergent thinking. The third phase, Develop, will constitute the design of the solution, once it has been narrowed down – convergent thinking. It could also compose of prototypes, tests and iterations. The last phase, Deliver, will comprise the final deliverables of the complete concept, which will be presented (Design Council, 2005).
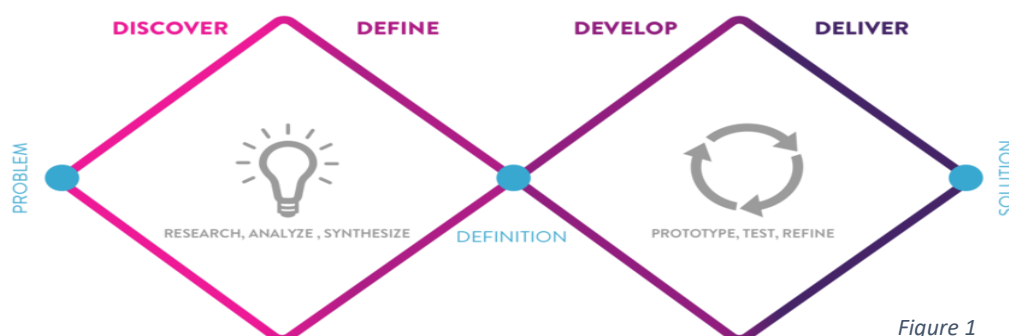

Figure 1

Pre-project phase.

This particular topic has been chosen for several reasons. The main one is my long experience as an international student in Denmark since 2008. During all that time, I have gone through multiple hardships. The inability of the different universities to foresee and address these has had an enormous negative impact on my life. Therefore, I would like to work towards a solution, which will contribute to a better study and social environment of the international student in Copenhagen. The ultimate result aims at a better start of the international student and giving them enough time to focus on the chosen education and proper settling down in the city.

My work will allow me to make the lives of hundreds of foreign students in Denmark easier by addressing the issues they struggle within the country. Around 45% of them leave the borders after their graduation (Study in Denmark, 2018), which poses an issue for Denmark as the government does not receive return of the investment from educating these people, who find employment away.

Apart from my extensive experience as an international student in Denmark, I have been dealing professionally with students, who want to study in Denmark since 2014. I have an educational consultant agency, [Scandinavian Study](), specializing in assisting international students getting accepted in Danish universities and helping them accommodate in the country. My professional practice has given me further insights on the life of the international student and their daily difficulties.

The problem

The first problem I wanted to work on was:

How could integrating the Service Design mindset within the higher educational institutions in Denmark, help with resolving the integration difficulties that foreign students face in the country?

However, after interviewing the international advisor and the student counsellor at AAU CPH, the research question shifted to:

How to improve the experience of the new international students starting at Aalborg University Copenhagen through the service design approach?

During my conversations with the staff of AAU CPH, I became aware of certain limitations, which I had to take into consideration when designing the solution for their problem. I wanted to integrate it in the already existing application portals for bachelor and master programs in Denmark – optagelse.dk and STADS. However, that would have required approvals from different institutional bodies involved in the control of the application process, working under the supervision of the Danish Ministry of Education. To avoid these extra approvals and make the process easier and faster, I had to think of an alternative ways to satisfy the needs of AAU CPH and come up with a viable solution to the problem.

Moreover, I limited the research to students coming from the European Union (EU) countries as I did not have access to enough students coming from outside Europe to explore their user journey and critical factors. However, the solution should be applicable to them as well to a high extent.

Timeline of research

|	February	March	April	May	June
Discover	User interviews, phone calls, research, attend workshops & presentations		Expert interviews, emails, phone calls	Watch webinars, attend presentations	
Define		Analyze insights, benchmarking	Workshops, ideation		
Develop			Brainstorming, co-creation sessions, shoot videos	Prototype and tests	
Deliver				Process and product reports	
Write					

Figure 2

Discover

In the following section I will present what my research consisted of in order to get a full understanding of the underlying causes of the problem.

The whole process began with approaching current students at AAU CPH as well as other academies and universities in Copenhagen, as I was waiting for an official cooperation confirmation from the AAU CPH. My aim was to get knowledge of the student needs and expectations about their student life in the city and academic experience. Moreover, I contacted eventual future students to see how they imagine their future in Copenhagen and to compare to what extent their expectations are similar to the reality, which they will face upon arrival. Furthermore, I made contact with graduated students, who are currently living in Copenhagen, as well as such that have chosen to return back to their home countries. My goal was to understand their drivers – what made them stay or go back home, whether something affected them in a negative way and if so, how could that have been prevented.

I started conducting semi-structured interviews with open-ended questions with the first group of students – current students at AAU CPH, Copenhagen Business School (CBS), Copenhagen Business Academy (CPH Business), Københavns Erhvervsakademi (KEA) and IT University of Copenhagen. The purpose of having this format of the interviews was that it would allow me to have a set of predefined questions, as well as enable me to pivot the conversation in any direction and ask additional questions according to the answers of the respondent (Wengraf, 2001). That gave me the opportunity to dig deeper and obtain extra information, when the respondents shared experiences and problems, which revealed interesting and vital facts.

I conducted these interviews face to face with each of the interviewees. Some of the respondents were people that I knew well and the interviews were planned beforehand. Others were conducted at the campus of AAU CPH with random international students, who spared time to share with me their personal experiences and expectations.

*Pictures from interviews and sketching user journeys*
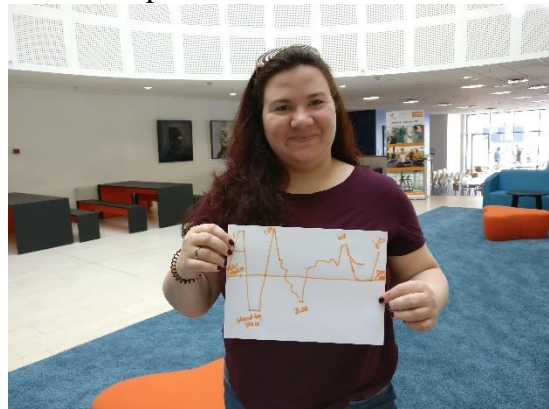
Apart from all the gathered information, each of these interviewees was asked to sketch their user journey from the moment they had decided to undertake an education abroad to the completion of their first semester in Copenhagen. A user journey is a visual representation of the interaction of the user with the service and its touchpoints. Having these journeys was essential in terms of assessing the problems the users have encountered, which allowed me to recognize the eventual required changes to improve the overall experience of the users (Stickdorn & Schneider, 2011).

The other three types of interviewees were contacted either by skype or phone. Some of them were abroad – those, who had returned to their home countries as well as those, who had just applied at Danish universities. The respondents, who were in Denmark, found it more comfortable to talk over the phone as they were busy with work or personal activities, but were ready to contribute with their experience and feedback. Overall, the means of the interviews were carried through did not affect the collected results. Although I could not be in the same room with each respondent that did not stop me from asking all questions I found relevant and get the needed answers.

Besides the interviews with the students, I had an expert interview with the International Senior Advisor and the Student Counselor at AAU CPH. Most of the prepared questions were open-ended, which allowed the interviewees to share their knowledge to a great extent and enabled me to construct a much better picture of where the real problem might lie (Johnson, 2013). I had a follow up email exchange with the international office as well as the admission office officers, who contributed with vital information about the communication and admission process with both bachelor and master students at Aalborg University.

Last but not least, I attended a presentation and participated in a workshop of the Study Environment Committee, which task was to get insights about the current services offered at the campus and get inspiration about the improvement of the study environment. My attendance was a vital one in terms of verification of the problems I already had encountered.

Study Environment Presentation
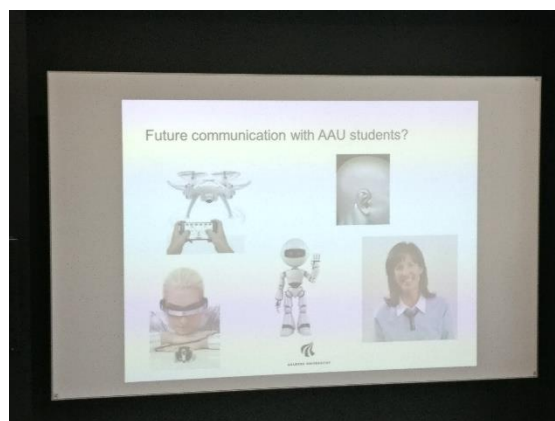
Key Findings

In the following section the key findings of the research phase will be described.

To begin with, the conducted interviews with students and experts complemented one another and thus a clear idea of where the true problem lies was built.

AAU's staff findings:

1. Accommodation:
   - Main problems of the students are finding accommodation and a student job.
   - Accommodation is not prioritized by the AAU to address the issue. AAU CPH has only 30 rooms available for the new students.
2. Communication:
   - The international office is still facing the same problems ever since the campus opened doors in Copenhagen in 2012.
   - The bachelor and master students use two very different platforms to track their application process.
   - Students lack information after they have submitted their applications.
   - Students are not prioritizing the challenges they will face – they are not aware of what is to expect in Copenhagen.
   - The needed information is spread over different webpages of the AAU website – it causes confusion among the students, it is hard for them to navigate.
3. Offered serviced at the campus:
   - Although there are two Danish providers on campus, only ¼ of the new students begin studying Danish.
   - There are two career counsellors, who meet students personally and organize workshops, meetings and events to inform about the job market, CV and how to apply for a job.
   - AAU tries to inform about these activities via social media (Facebook, Instagram), info-screens on campus, Moodle, student e-mails, letters,

flyers/folders, magazines, internal communication (via study-secretaries, study coordinators, meetings) etc.

- Not enough students attend the above-mentioned meetings. There is not enough visibility, students do not know about them.

- Teachers at the different programs are also not aware of the available services for students. Better connection between the administration and each study program is needed, which will create more visibility about the services, which are in place.

- Not enough focus has been put on the culture shock, which the internationals will experience.

- Problem Based Learning (PBL) introduction could and should be improved.

Findings from the conducted interviews with students:

Reasons to study in Denmark:

1. Financial reasons
   - Escape the bad financial situation in the home country.
   - To have better life opportunities.
   - Help the family.
2. Practical high quality free education – better perspectives in life.
3. Simply study abroad.

Expectations:

1. Denmark is great in so many aspects
   - Denmark is the dream land – like in the movies, the perfect country.
   - Meet high service standards.
   - Mix of cultures.
   - Expect a lot of events, to make a lot of friends mainly Danes.
2. Face no problems
   - Get help with student job from the university.

- Everything to be organized by the university – including accommodation.
- Help for everything they will face.
- Find a job easy – make a lot of money from the very beginning.
- Danes to be cold, but not that much.
- Prepared for a bad and cold weather.

3. Focus on integrating, studying and staying in Denmark
- To study Danish.
- Get a master degree in Denmark.
- Expect to travel a lot during studying.
- To live and work in Denmark upon graduation.

Reality:

1. Students are unprepared when they arrive in Copenhagen:
- Students fully rely on the educational agent at their home country, which leads to incorrect information and wrong idea about the life in Copenhagen.
- They do not do enough research about the life in Copenhagen - lack of information about how to survive in the city.
- They do not consult the university website for information besides the admission requirements. *"The design of the website was really bad – too confusing. I used facebook groups to find information."- admitted international student*
- They do not receive any information from the university before they are admitted.

2. Students lack 100% trustworthy contacts:
- They use Facebook to connect with current/former students. However, the information differs significantly from person to person, based on the experience they have had.
- Students usually have maximum 1-2 friends in the city.
- Students do not feel comfortable writing to the university. "*I did not ask the university to help out. I did not feel so close to the university and I did not even imagine they would help with my issues."- graduated student from AAU CPH*

3. Students experience serious accommodation and financial problems:
   - Some students contact the university only about accommodation, but far too late.
   - The long waiting time for accommodation makes them not apply at all.
   - Usually the students come with a prepared budget for up to 3-5 months without a job.
   - No idea about the accommodation problem. Cannot find accommodation for over a month. Many temporary housings, loss of deposits. Stress.

4. Students do not benefit from the available services at AAU CPH:
   - Students feel warm welcome in the beginning at the university, but then they are all alone.
   - Students are not familiar with any services the university offers – (career center, social events, clubs, etc.).
   - Students have difficulties with all practicalities (CPR, nemID, bank account).
   - Students find it difficult to integrate.
   - They do not have time for Danish, do not see the benefit of learning it.
   - It is hard to find a job. *"I gave out over 100 CVs and still did not find a job". – current student at AAU CPH*

5. Students are unaware of the Danish reality:
   - Cultural differences – Danes are quite different.
   - Internationals have almost no Danish friends.
   - Danes are taken as rude. (But they just say what they think).
   - Danes are practical and relaxed people. They will not sacrifice their spare time to do projects either. They want to be productive and use their spare time.
   - Danes do not go deep in their relationships.
   - Students have the impression that the teachers do not seem to care about the problems, they are facing.

Why some students left Denmark:

1. Experienced problems from the very beginning:

- They were not prepared for the reality they met.
- They had a hard start – no accommodation, not familiar with the culture shock, had to deal alone with everything on the spot.
- They had a hard start at the university – not prepared for what is expected from them.
- Lost a lot of money for accommodation, deposits, cheated by employers, etc.

2. Found it difficult to adapt:
   - Everything happens over the internet.
   - Almost no Danish friends. *"Danes do not let foreigners close to them". – former student at AAU CPH*
   - They had extremely hard time to find a student job.
   - They did not study Danish – no time, no energy, did not see the benefit, then they had to pay for it.
   - They did not feel integrated in the country.
   - They lacked support from the university – more social events and guidance.
   - They could not find a job after graduation.

Why some students stayed in Denmark:

1. Adapted to the new environment fast:
   - Found a student job relatively easy and early.
   - Did not have any serious accommodation problems.
   - They do speak Danish, although not perfectly.
   - They work in their sphere of education.

2. Liked Denmark:
   - They like the serenity and security of the life in Denmark.
   - Most of them did not have a clear vision to stay when first arrived.
   - They believe they will have better opportunities in private and professional life.
   - Despite not having a lot of Danish friends, they do see themselves living in Denmark.
   - They feel integrated, or did not put effort into integrating themselves.

Summary:

The most important takeaways from these results were the biggest challenges the students have to face in their first weeks/months in Denmark. These are the most important factors AAU CPH should inform and educate about before and after their arrival.

1. Securing accommodation before arrival;
2. Be financially prepared;
3. Finding a student job;
4. Building a social circle;
5. Address the culture shock issues;
6. Look for help, if in need;
7. Study Danish.

Define

In this stage the information gathered from the conducted research in the previous phase will be synthesized to clarify and define the problems at stake, which the solution needs to accommodate. The organized and interpreted data will allow me to see patterns, which will guide me through the rest of the design process (Hatch, 2002). I will investigate how other universities in Denmark have addressed this situation and whether their expertise could be beneficial for AAU CPH. The define stage evolves in an open manner with the goal to consider new opportunities, which could be included in the final solution. The gathered information will be used for creation of personas, their current user journeys and scenarios, which will allow me to define a second problem formulation.

Expert interviews

At the first meeting with AAU CPH international office – a senior advisor and a student advisor, I revealed my desire to explore and resolve the integration difficulties of international students in Copenhagen. However, they pointed out that their biggest issue is the broken link between the international office and the students. Despite the different events organized by the career center and the international office, far too few students have been aware and attend these events or used the available services. Although a wide variety of communication channels has been used, the results have not been satisfactory so far. In addition to that, they revealed that teachers are not familiar with these services either. Another crucial information was the inability of almost all international students to find accommodation prior to their arrival. Furthermore, the advisors expressed their despair in the shortcoming of properly informing the incoming students about the housing issue in Copenhagen.

Map of current offerings

To have a clear idea of all services offered by AAU CPH, I decided to map them all out (fig. 3). That gave me the opportunity to evaluate what is available, determine whether something is missing and last but not least restructure the way these services are offered to the students.

Tutor / Buddy Team	Kayak Club	Student Bar	Coffee Spot	Sauna	Yoga
Massage	Stress Management Classes	Contemplation Room	Study Environment Group	Student Life	Football Club
Canteens	Library	Reading Room	Print and Copy	Workshop Facilities	Laboratories

Student

Student Guidance	Career Guidance	International Guidance	Accommodation Office	SU Office	Information Desk
IT Support	Student Self Service (STADS)	Study Start Calendar	Student APP	Book Store	AAU Student Card
AAU Student Email	WI - FI	Danish / Other Lessons	Moodle	AAU CPH Map	Other

Figure 3

Existing Systems at AAU

To be able to evaluate the communication between AAU CPH and the incoming students, I had to look at the information fed by AAU CPH to the students from the very beginning. AAU's website is rich in materials. However, the conducted interviews revealed that this information is hard to find and therefore, not everybody can manage to do that or they simply are not aware of its importance early in the process.

When applying at AAU, bachelor and master students use different digital platforms. Bachelor students apply via optagelse, master students via STADS. When bachelor students file their application, AAU requests them to register in an internal system called UniStart, where they can keep track of the process of their application. The last menu of this portal contains vital information about the AAU card, AAU email and the life in Copenhagen. However, students get the impression that this information needs to be explored and exploited after they are admitted at the university, which poses a problem.
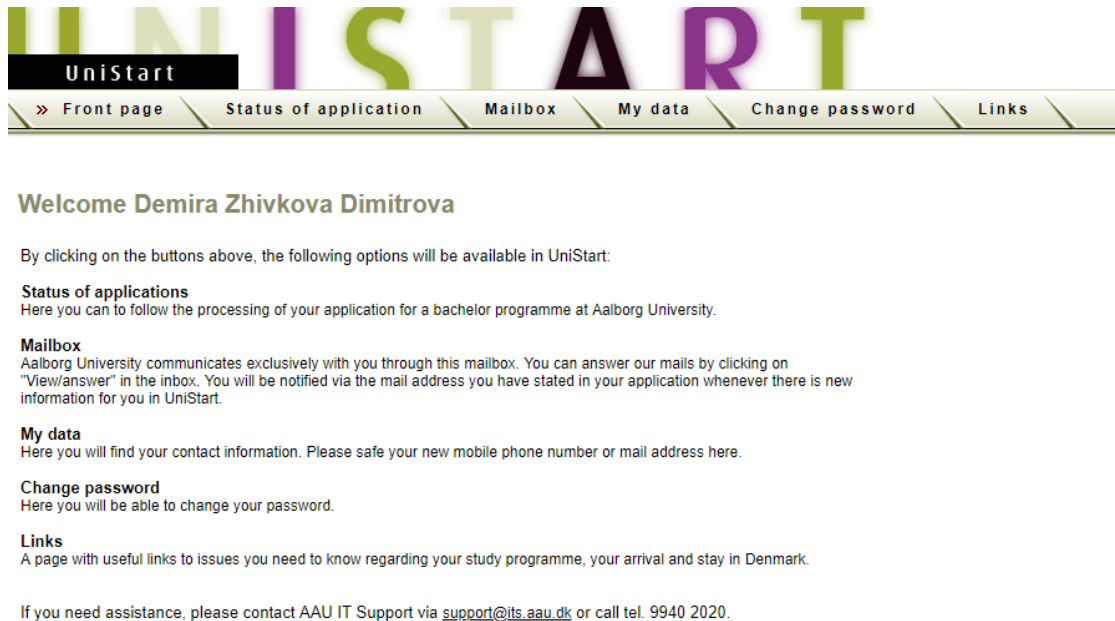
Picture of UniStart welcome screen

The master students, on the other hand, are first asked to register at STADS, when the receive conditional admission letter, a few months later.

I was able to get this information, because of my work position as an agent and luckily I had both a bachelor and master student, who gave me access to their applications, which proved to be extremely important not only at this stage but also during the design later on.

I should point out that before getting the access to UniStart, I was exploring an option whether Aalborg University could use the optagelsesportal for their bachelor students. I had the wrong information supplied by the international office at AAU CPH that AAU does not get information about the bachelor students before 5th July. This is an example of bad communication between the different departments of AAU.

This optagelsesportal is used by some of the academies in Denmark. I was not aware that the bachelor students receive access to UniStart. Therefore, I called the support person in charge of optagelsesportal and asked him whether Aalborg University could use their portal to push information towards all their bachelor students. Once I had his confirmation, I sent an email to the study administration in Aalborg to Anni Lunø, explaining her my initial idea. My email had confused her. She explained me how the system works and sent me the invitation letter all bachelor students receive for registration at UniStart, once they apply at optagelse.dk. That solved all my issues.

Benchmarking

After processing the problems presented by the AAU's staff, I was able to see whether some of the other higher educational institutions face the same issues and how they have been addressing them. My idea was to do a functional benchmarking. I wanted to identify implemented successful practices so that AAU CPH could probably adopt them and thus enhance the outcomes (Ramaswamy, 2013). Fortunately, I had students, who had applied to several universities in Copenhagen - CBS, ITU, KEA, Zealand Institute of Business and Technology (ZIBAT), CPH Business and in Aalborg - University College of Northern Denmark (UCN). That allowed me to compare what these universities are doing and be able to use their ideas as a competitive advantage (Ramaswamy, 2013).

CBS and ITU do not provide any additional information to the applied students via email, after the application process is completed. These universities fully rely on the provided information on their webpages. The students are not contacted before their official admission at the end of July in any way.

KEA does not give further information either. However, they notify the students via email for the reception of their documents and that a further assessment will take place.

Both ZIBAT and CPH Business send emails to the students and request them to register in internal portals, where they can follow the progress of their applications. Unfortunately, the portals are not used for additional information beside the application process. There is an option for communication between the university and the student and nothing more.

However, CPH Business sends additional emails to their students where they inform them about the life in Copenhagen and the most important steps they need to undertake if they are to move and study in Denmark.

The first email contains a short description with important dates and a link to a quiz *"Do you know what it takes to settle and succeed in Copenhagen?"* When the student completes the quiz a new email is automatically sent to them with a complete accommodation guide and answers of the quiz. If the student does not complete the quiz, a reminder email is sent in due time, thus nudging their behavior (Sunstein, 2017). (Click the links to see the quiz and the accommodation guide).

UCN also asks their students to register in a separate portal, similar to ZIBAT and CPH Business. However, this university college organizes a Facebook event for a webinar, which aims at informing about the life in Aalborg and at UCN, the accommodation in the city and answering additional relevant questions asked by the incoming students.

Similar to UCN, Business Academy Aarhus (BAAA) organizes a Facebook live event, where they familiarize the applied students with the most important information they believe is essential before arriving in Aarhus and during the first weeks in the city.

First workshop with students

Once I had enough information about the systems at place, I focused on synthesizing the information required by the students. First, I already had conducted semi-structured interviews with a number of current, past and future students, which had given me valuable data. However, the next step was to organize a workshop with two current and two graduated students, which aim was to fill in the missing gaps in the international student profile. The workshop was held in a private study room in a dormitory in the city center. The participants took part in a game called Empathy Map (fig. 4) (Gray, Brown, & Macanufo, 2010). I was the facilitator and explained them the purpose of the game. Once they started generating ideas, I was writing them on posted notes and sticking them on the white board in front of them. The whole exercise took around 25 minutes, as the participants were quire reluctant to share their experience. However, the provided information together with the already collected research from the interviews allowed me to create two personas. I needed a visual representation of the fictional characters,

who are facing all the problems in order to get different perspectives on the eventual solution (Stickdorn, Schneider, Andrews & Lawrence, 2011). My goal was to engage the participants and make them see the problem from all sides, which would later on be required for the planned brainstorming in the next session.
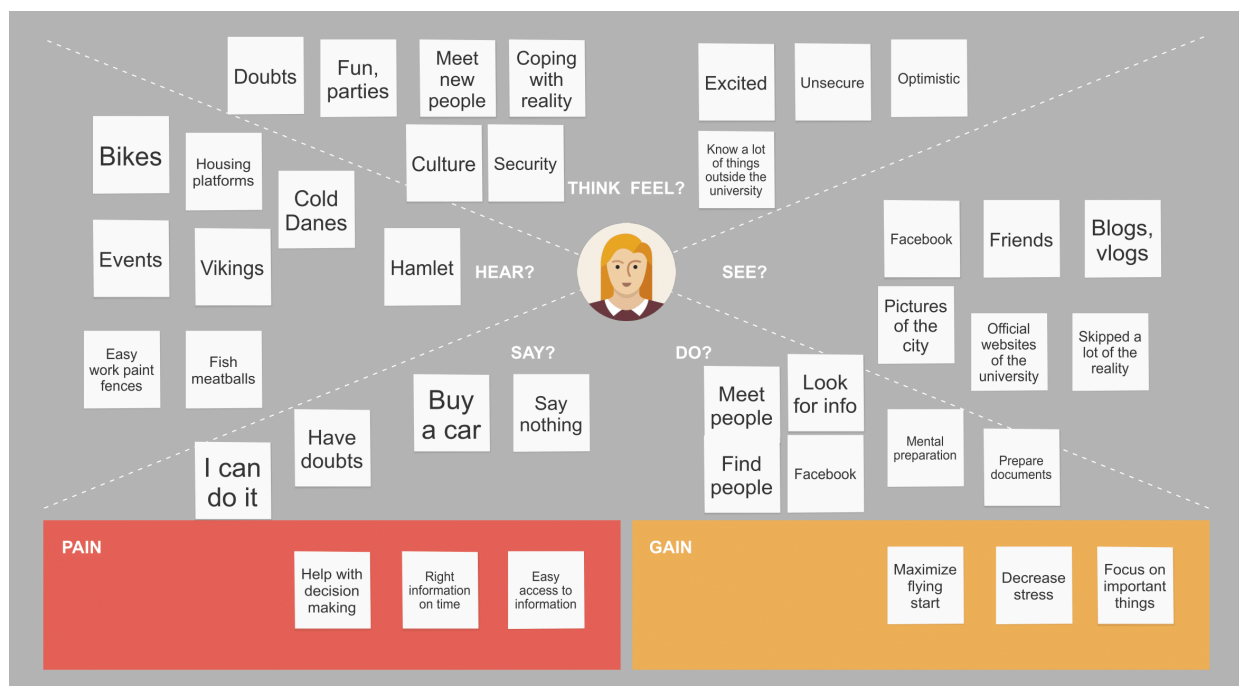

Picture of Empathy map

Figure 4 Empathy map

Personas

The collected information from the above activity, together with the conducted interviews and sketched user journeys allowed me to create two personas. Creating personas answers the question who am I designing for and helps aligning strategy and goals for the specific user groups (Nielsen, 2004). Engaging as much as possible with the users and their challenges, developing empathy for them was essential to get a much clearer idea of how the solution should be used to satisfy their needs. Creating personas is a strong tool, which enabled me to present specific relevant solutions, based not on general cases but on real users (Cooper 1999).
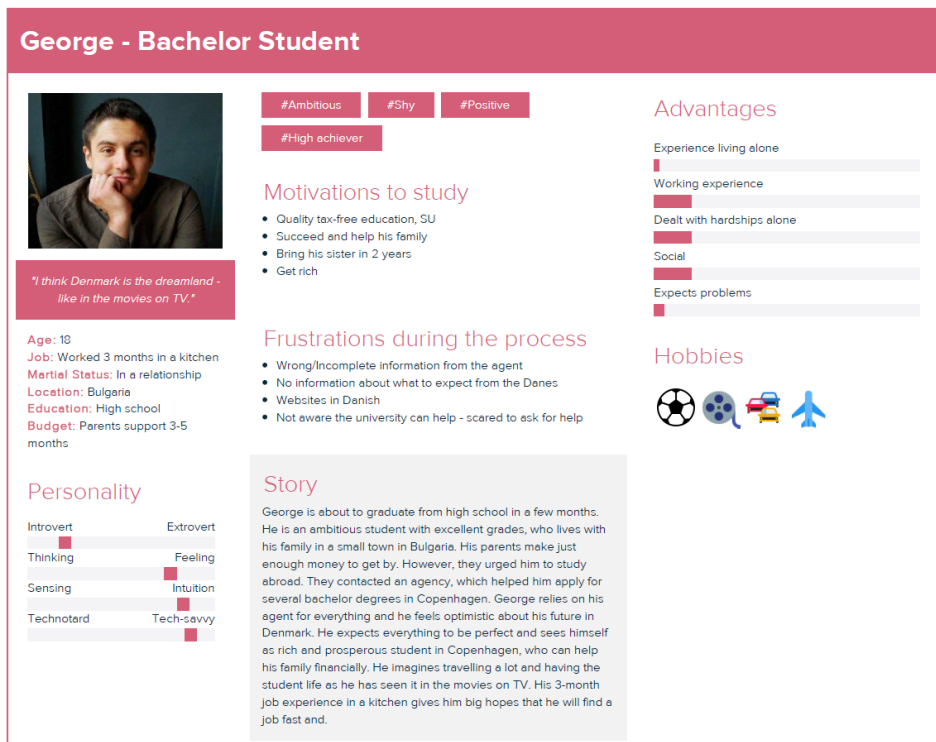
George - Bachelor Student

#Ambitious   #Shy   #Positive
#High achiever

"I think Denmark is the dreamland - like in the movies on TV."

Age: 18
Job: Worked 3 months in a kitchen
Martial Status: In a relationship
Location: Bulgaria
Education: High school
Budget: Parents support 3-5 months

Motivations to study
- Quality tax-free education, SU
- Succeed and help his family
- Bring his sister in 2 years
- Get rich

Frustrations during the process
- Wrong/Incomplete information from the agent
- No information about what to expect from the Danes
- Websites in Danish
- Not aware the university can help - scared to ask for help

Advantages
Experience living alone
Working experience
Dealt with hardships alone
Social
Expects problems

Hobbies
⚽ 🎞️ 🚗 ✈️

Personality
Introvert — Extrovert
Thinking — Feeling
Sensing — Intuition
Technotard — Tech-savvy

Story
George is about to graduate from high school in a few months. He is an ambitious student with excellent grades, who lives with his family in a small town in Bulgaria. His parents make just enough money to get by. However, they urged him to study abroad. They contacted an agency, which helped him apply for several bachelor degrees in Copenhagen. George relies on his agent for everything and he feels optimistic about his future in Denmark. He expects everything to be perfect and sees himself as rich and prosperous student in Copenhagen, who can help his family financially. He imagines travelling a lot and having the student life as he has seen it in the movies on TV. His 3-month job experience in a kitchen gives him big hopes that he will find a job fast and.

Figure 5 Persona – Bachelor Student

Linda - Master Student

#adventurous   #determined   #do-it-yourself
#winner

"I expect it to be hard, but I am determined to succeed."

Age: 24
Job: Marketing assistant
Martial status: Single
Location: Germany
Education: Bachelor degree
Budget: Own savings for 6 months

Motivations to study
- Quality tax-free education, close to Germany
- Positive online reviews of students
- Travel, make friends
- Become a skilled professional

Frustrations during the process
- Misleading information about accommodation
- Not prepared for how Danes act
- Not prepared for the manner of teaching/performing
- Missing tips and tricks on how to approach the job market

Advantages
Experience living alone
Working experience
Dealt with hardships alone
Social
Expects problems

Hobbies
🏔️ 🚴 🤸 🍹

Personality
Introvert — Extrovert
Thinking — Feeling
Sensing — Intuition
Technotard — Tech-savvy

Story
Linda is working in an advertising agency in Munich, but feels she needs to get a master's degree. She is keen on travelling and believes a master's degree abroad poses a great opportunity for her. Therefore, she finds different universities in Europe by herself and files her documents. She is adventurous and eager to experience a new country, culture and make friends. Despite living by herself ever since she graduated from high school, she does not put enough energy to research what her life in Copenhagen will be like. Somehow, the positive reviews are enough for her decision. However, that will be problematic in the future. Nevertheless, she is confident in her skills and determined to succeed in her adventure at all costs
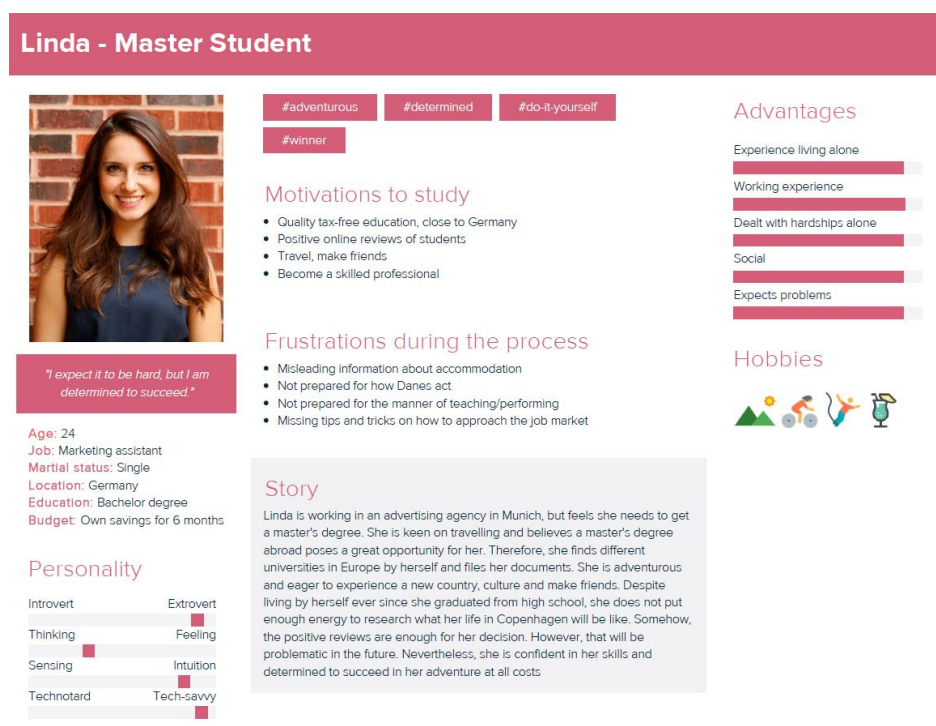
Figure 6 Persona – Master Student

It is important to emphasize how the above created personas were used in the design process and in the below user journey and scenarios. The main key feature of the personas is the age, which corresponds to their experience with resolving difficult situations as well as living on their own. Furthermore, what else affects the users is their personality – whether they are introverts or extroverts. The extroverts have an advantage in creating faster friendly environment in Copenhagen in order to settle down. The budget is also an important variable – most of the students need to find a job no later than six months upon arrival.

User journeys

The generated information about the personas allowed the four participants in the workshop to brainstorm a possible user journey map for the students applying at AAU CPH. The whole process took around 15 minutes and it was re-shaped several times as new and new steps emerged later during the process. I again assumed the role of facilitator asking questions and writing on the white board their suggestions. I should point out that two of the participants were already familiar with the tool, as they had been interviewed and asked to sketch their user journeys.

The user journey stands for the user-centric aspect on service implementation. The idea is to follow the user throughout the whole experience and see the world through their eyes (Hefley & Murphy, 2008). The user journey map is a visual representation of actions happening to the user in a chronological sequence, which can be supplemented with the user's emotional state at each step. Extremely popular in service design as techniques (Segelström, 2013), the user journey has been implemented while designing different public and commercial services in the past decade (Crosier and Handford, 2012).
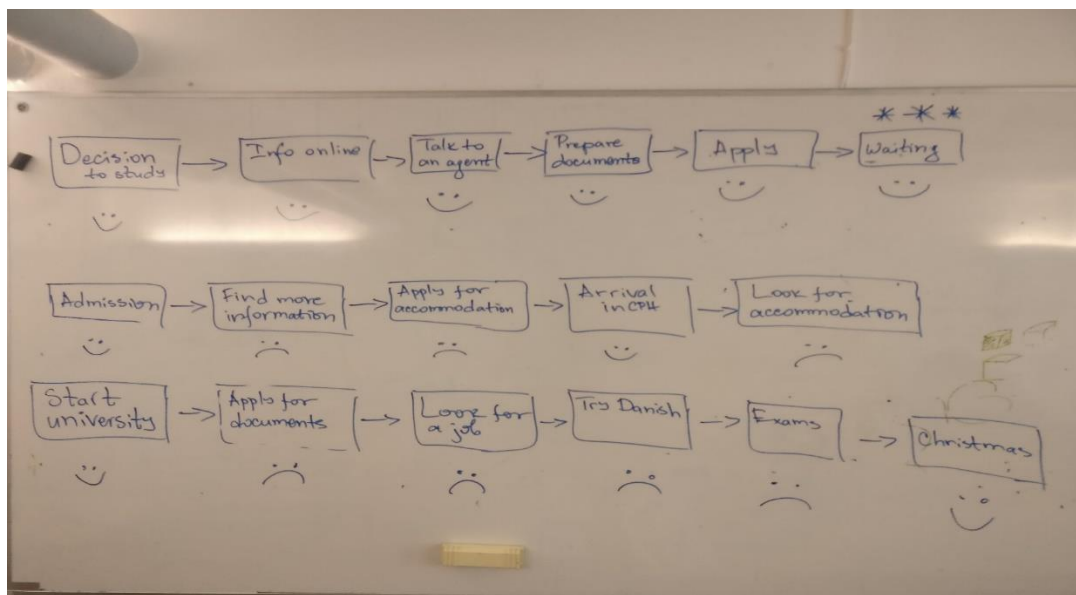
Picture of the user journey

31

That initial sketch was further developed with the insights gained from the conducted interviews as well as the own user journeys sketched by interviewees. The final result was two improved user journeys maps (one for a bachelor and one for a master student, available further below, after each scenario) corresponding to the created scenarios.

User Scenarios

However, before creating the final versions of the user journey maps, I wrote two user scenarios, which proved to be essential in raising additional questions (Rosson & Carroll, 2009). Furthermore, they made me review and analyze the collected information again, thus ensuring no important steps are being omitted, which could be crucial in the brainstorming of the solution (Stickdorn, Schneider, Andrews & Lawrence, 2011).

1st Scenario – Bachelor student

George is a high school graduate. He was always among the best students in his class. His parents saw a commercial on TV about the free education in Denmark and that opened an opportunity for him to get his education abroad. They believed he will have far better personal and professional perspectives this way. They looked for professional advisors, who could assist George with the application process and all required information about the life in Denmark. After a short meeting with a personal assistant at one of the biggest educational consultant agencies in Bulgaria, George certainly decided to study in Denmark - at AAU CPH. He received information about the needed documents and over the next few months he gathered all of them. However, little focus was put on his future life in Copenhagen. Somehow all the attention was dragged towards the application and George invested so much energy that he never thought about all the rest – accommodation, financing, practicalities, etc. He was also busy with getting high grades, pass exams, graduation ceremonies. The documents were filed and his agent told him just to wait for an answer.

George was checking impatiently his email and UniStart portal several times a day to see if there is an answer from the AAU CPH. Unfortunately nothing. The waiting was not easy. George was waiting until the very last day when all admission letters were sent out – 30.07!

Success! He was admitted! He is going to Copenhagen. Sheer joy and inexplicit thoughts were running through his mind when reading his acceptance letter. The additional information in the admission letter was not important to George now. He was too happy for anything else but celebration! He instantly accepted the offer and went on telling the news to his family. They were all having their vacation at the seaside.

A few days later he started thinking "Where am I going to live? How am I going to get around in Copenhagen?". However, he felt secure – he had his personal agent, who would help him with everything required.

Ten days later, George was back from his vacation and went to see his agent. Unfortunately, his agent had quit the position and George had to speak with another person. That made him feel uneasy, but he had prepared his questions. Suddenly, George was not getting the answers he was hoping to receive. The information about Copenhagen and AAU CPH was poor, but what stroke him most was the unavailability of accommodation. He was left to figure out that on his own. He had less than 15 days to find a room for himself in the capital of Denmark. The most stressful 15 days in his life so far.

He went home and spent the next week online looking at accommodation websites, groups on Facebook and talking to different people studying in Denmark. He was getting more and more worried with each day. He somehow managed to register in different free websites, which were given to him by his agent and other people, but his position was not even close to being offered a room. Unfortunately, he did not complete some of the registrations correctly, which was also another problem. He had lost all hope and started considering staying and studying in Bulgaria.

Luckily, a girl contacted him and offered him a room in a shared house. All he needed to do was to sign the sent contract and transfer money for the rent. He even did not read the contract, as it was in Danish. He did not see any other option, but to trust the person behind this facebook profile. So he did. He wired the money and sent the signed contract. He bought a plane ticket and thought that everything is settled. He had five days before his departure and had so many things to finish in Bulgaria, he barely made any other research about Copenhagen, transport system, Danes and their culture – George knew nothing about what was going to happen to him.

Two days before his departure the girl stopped responding to his messages. That worried George a lot, but he had no other choice but go to the address she had given him in the beginning. He landed in Copenhagen, took the metro and went to that address. Unfortunately,

as he feared, at that address was living an old gentleman, who had nothing to do with the person, who offered him the room. Not to mention that the place looked totally different. George was shocked and devastated. He called his parents. He wanted to go back home straight away. It was already 17 o'clock, it was starting to rain and he had no place to go. After a short conversation with his parents, George found a hostel he could stay for the night.

The next day he called the only person he knew in the city – an elder brother of a friend of his. George was extremely lucky and the boy offered him to come live with him for a few days, despite his 9 square meter room. Next days were not easy for George. He spent them at the library looking for accommodation. The school year began in a week. George started going to lectures, but he could not really focus as the accommodation problem was always on his mind. He could not apply for his CPR, because he did not have an address where to register and Copenhagen was more expensive than we thought. He found a temporary place, where he could stay for three weeks and he moved there. However, he still had the same problems. He moved again to another place for three more weeks before he finally found a room, a lot more expensive, but he could stay there for unlimited time. However, the landlord from the second house did not return him the deposit he had paid and George lost 4000 kr.

It was already the end of October, exams were approaching and George did not have neither documents, nor a job. He did not have the time and energy to look for a job, not to mention going to Danish lessons. In fact, he did try one time, but he was tired, could not focus because of his accommodation problems and decided not to waste his time at that point. He had so many other responsibilities, which were totally new and time-consuming for him like cooking, doing the laundry, grocery shopping, etc. He was totally unprepared for all that.
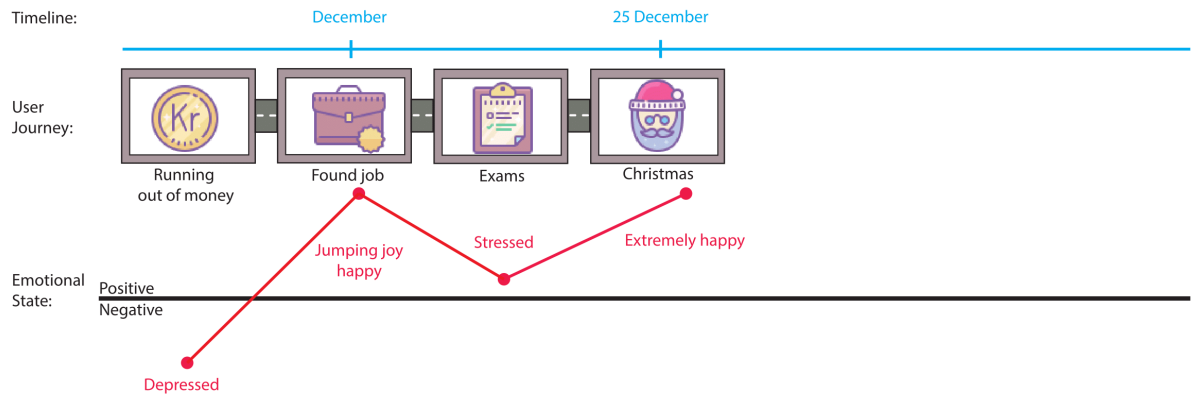
Furthermore, he was running out of money. He had already asked his parents to send him money twice and he knew that they had borrowed them from friends. He started applying for different jobs only to find out that the situation is a lot more difficult than he ever thought. They asked him whether he speaks Danish and when he said no, all he got was a promise for a call in the future, which never happened. That was quite demotivating. However, he did got a job as a dishwasher through one of his new friends, but that took another month. His exams have approached but he did not prepare as well as he wanted, because he had so many problems to deal with.

Christmas had just arrived and George could not be happier to be home with his family, even for a few days only, as he had a shift on New Years' Eve. If only he had the right information

about all he experienced over the past 4 months in Copenhagen. He barely made any friends, did something fun, explored the activities offered by the AAU CPH or read the books he was supposed to read. He is uncertain about his future, but Denmark does not seem so appealing to him any longer.

Figure 7 User journey - Bachelor

Timeline: December   25 December

User
Journey:

        Running   Found job   Exams   Christmas
        out of money

                                              Stressed   Extremely happy
                          Jumping joy
                          happy
Emotional   Positive
State: Negative

                 Depressed
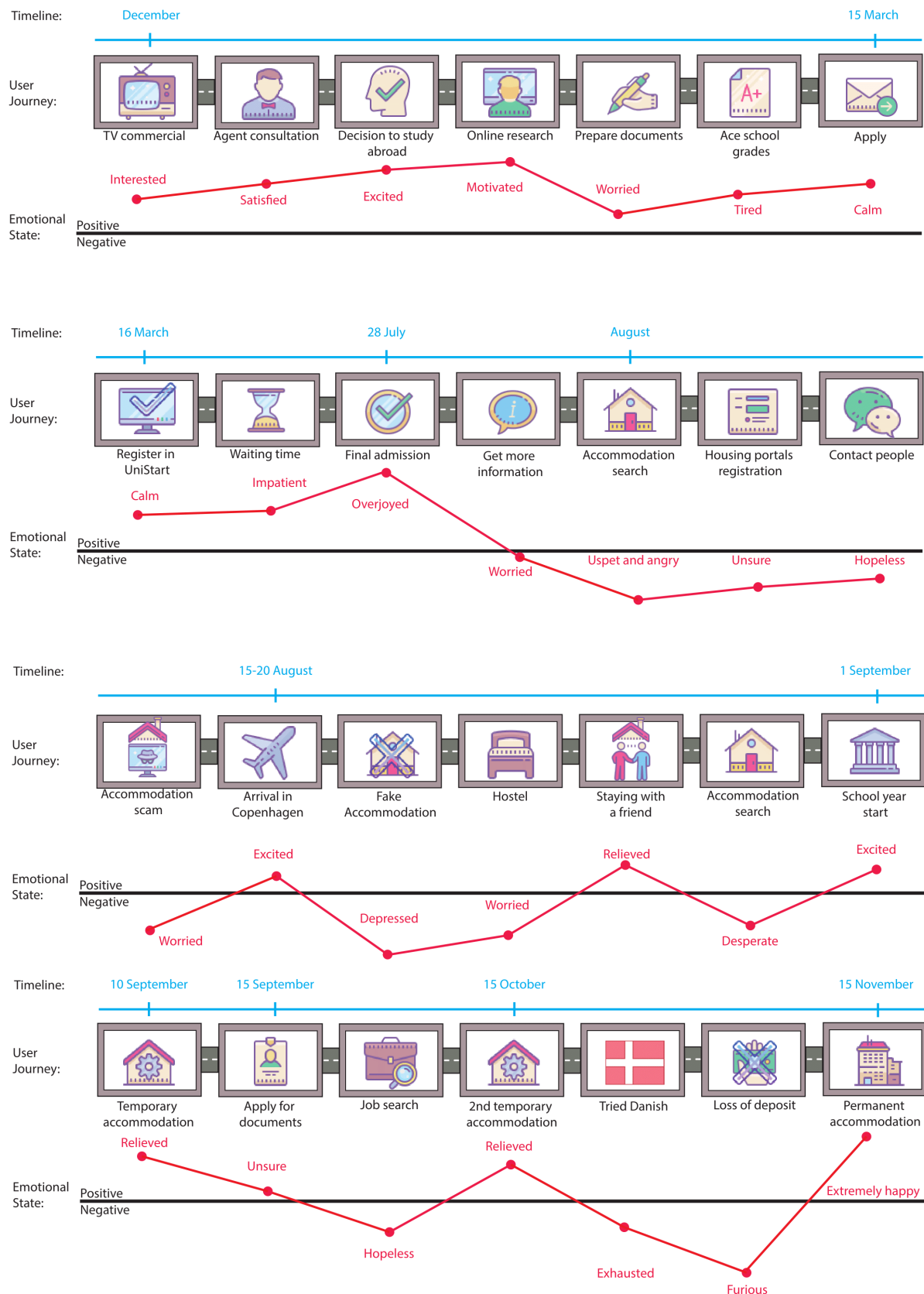
Linda finished her bachelor degree in Germany. She is 24 now. For the past year she has been working for an advertising agency. She liked her work, but she also wanted to get her masters degree. She spent a few days researching possible master degrees abroad, as she always wanted to live in another country and that was a perfect opportunity. She liked a few programs in different countries, one of them was offered at AAU CPH. Linda had a friend, who was studying in Copenhagen. She reached out and asked him about the city and weather it would be a good idea to spend the next two years there. After a brief conversation on Messenger, she felt solid in her choice and began preparing the needed documents for her application. She managed to gather everything required and began preparing for the IELTS she was missing. Linda enjoys doing everything by herself, because she wants always to be in control.

She filed her application at AAU and several other universities – in Sweden, Belgium and the Netherlands. During the application Linda ticked a box "I would like to apply for accommodation offered by AAU", which made her feel at ease about her future place. The universities in Belgium, Sweden and the Netherlands also could secure accommodation for her or at least this was the information she had. Then all she had to do was wait for the answers. Every day she was impatiently checking her email for responses. In the middle of June she got the answers – she was conditionally accepted at AAU CPH and at the Swedish university. However, she needed to pass the IELTS in order to fulfil the admission requirements. In the beginning of August she got the results – she passed it with the needed mark! Linda was extremely happy, she was going to study either in Denmark or Sweden.

She started digging deeper for information and joined different groups on facebook, where she talked to several students. A few days later she decided – she was going to study in Copenhagen. However, she had assumed that AAU CPH would grant her a room to live in, which was wrong. She never went through the whole process to see the details required for obtaining a room. She was frustrated and worried, but determined to succeed. She signed up in different portals – free and paid. However, with little time all she could do was hire an AirBnB room for her first two weeks in Copenhagen.

She arrived in Copenhagen a few days before the beginning of the school year and continued the accommodation search. She almost got cheated with a scam offer, but her experience saved her. Finding a room in Copenhagen proved to be a hard and timely task. She managed to find

a temporary accommodation and in a month of extremely active looking, networking and asking around, she did find a room where she could stay for as long as she wanted. However, the invested time for accommodation made her forget about Danish lessons, although she had the intention to study Danish in the beginning. She decided to focus on her studies instead and find a student job. She was applying for numerous positions, but her experience made her look overqualified, which was a problem in Denmark. Unfortunately, she was unaware of that. It took her a few months before a friend of hers finally helped her out with a job at a restaurant. Linda slowly got into rhythm and the hard start transformed into much better student experience. However, it did took a lot of energy, concentrated power of will and the fact that she has been living by herself during her bachelor degree. She was satisfied now, but wondered how would somebody else manage, if they lacked the skills she had obtained beforehand. Christmas marked a deserved rest at home with her family, which allowed her to energize as she had to return before New Year in Copenhagen.
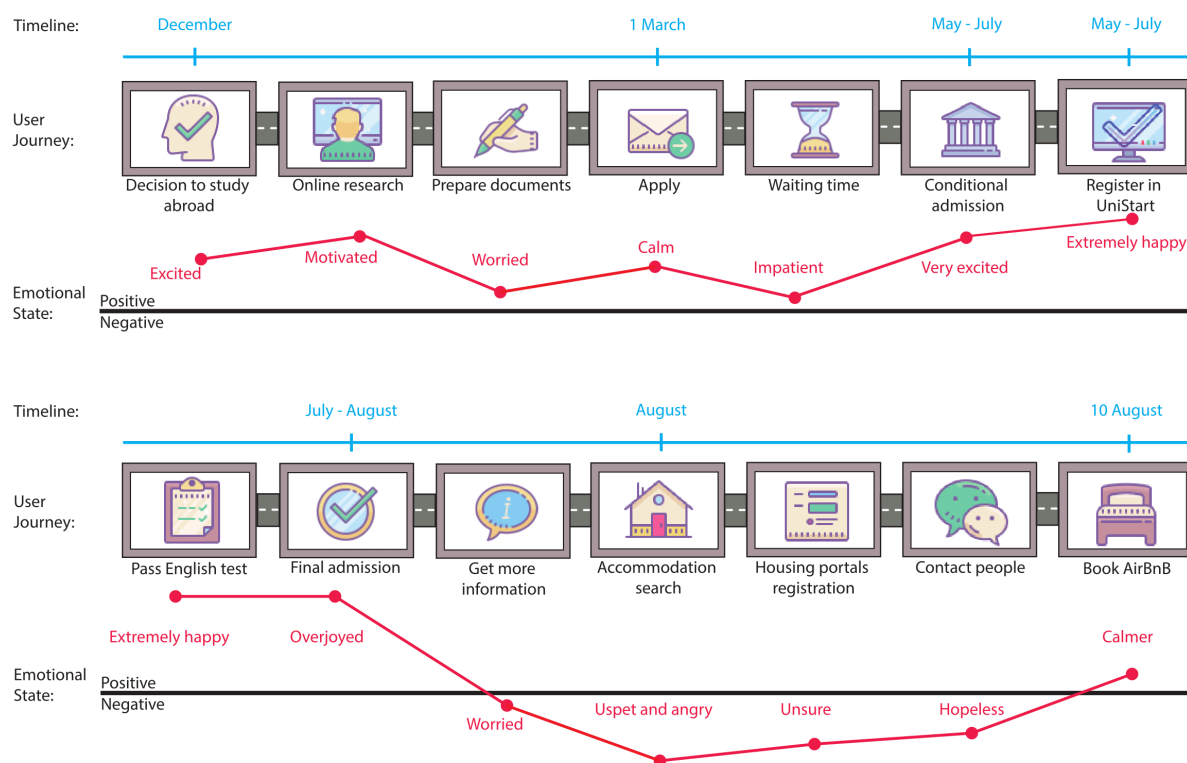
Figure 8 User journey - Master student

Timeline: 15-20 August | 1 September | September | 15 October

User Journey:

| Arrival in Copenhagen | Accommodation search | School year start | Temporary accommodation | Apply for documents | Job search | Tried Danish |

Emotional State: Positive / Negative

- Excited
- Depressed
- Excited
- Relieved
- Unsure
- Depressed
- Exhausted

Timeline: December | 25 December

User Journey:

| Permanent accommodation | Exams | Found job | Christmas |

Emotional State: Positive / Negative

- Extremely happy
- Stressed
- Jumping joy happy
- Extremely happy

In order to satisfy the needs of the International office and solve their issues, I kept constant contact with them. Each new information was presented to them in my desire to hear their opinion, involve them as much as possible in the whole project. I gave them the opportunity to contribute and invest in this project. My goal was to create a sense of ownership in them by putting them in the center of the future service and co-design the solution with them (Stickdorn, Schneider, Andrews & Lawrence, 2011).

One hour meeting was scheduled with the international accommodation officer, student counsellor and international senior advisor to evaluate together the current progress. After going through the collected research and models, the common understanding was that a better flow of information towards the applicants is required. Students should receive the right information at the right time, in order to ensure they are well informed with the reality awaiting them. However, not all information is needed at once as it will create information overload.

The two user journey maps proved to be crucial at this stage, as they allowed the AAU's staff to clearly see the sequence of actions and spot the right time for implementation of the eventual solution (Segelström, 2013). AAU CPH has extensive information at their disposal about almost everything a new student needs to prepare before coming to Copenhagen. However, it is all spread over several webpages, which makes it difficult for the students to navigate and find the right information at the right time, as mentioned by the staff numerous times. The potential of this information is not fully used as not enough students navigate to these pages to get familiar with their content. Therefore, a solution in that direction addressing the communication issues, was requested by the staff. It should ensure that all students receive the right information at the right time and are aware of all useful services offered by AAU CPH or any other trustworthy and beneficial source.

After examination of the user journey maps it was decided that all students should get access to a portal, shortly after they have applied for a program offered by AAU CPH. The main reasons behind this decision were:

1. Students face a long waiting period between submitting their documents and receiving admission letters. During that time they have a lot of free time, feel impatient and anticipate anything, which the university might send or ask them to do.

2. Solving the accommodation issue in Copenhagen requires informing the students about its magnitude relatively early. Furthermore, it is required for each incoming student to have registered for student accommodation well in advance in several different portals, because of the low availability of such housing, which covers only 20% of the total number of students in Copenhagen (Ministeriet for By, Bolig og Landdistrikter, 2014).

3. Denmark has one of the highest standards of living in the world (Forbes Media LLC, 2018). Therefore, all incoming students should be completely aware of the financial situation they will face in Copenhagen. To avoid the surprise and discomfort of the high standards, the students have to be prepared financially and have enough money until they settle down, obtain documents and find student jobs.

We had a short discussion on what names could suit such a portal and they all agreed upon "New students information system" as its primary task is to inform the new students about what they should expect.

Multilevel Service Design

The multi-level service design-model (MSD) (Patricio, Fisk, Falcao e Cunha, & Constantine, 2011) allowed me to express how the conducted research could affect both AAU CPH and the incoming students. The framework is composed of three hierarchical levels (fig. 9):
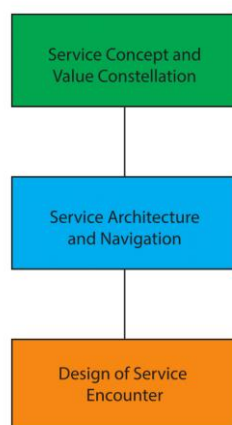
Figure 9 MSD (adapted from Patricio et al., 2011)

The top level represents the service concept and value constellation. It is a comprehensive perspective of what is offered to the user by the organisation. These offerings could come from different service providers and this constellation visualizes what is supplied by whom. In this way the constellation can be used by the organisation for evaluation and further improvement.

The middle level is the service system navigation and architecture. It examines the architecture and how it operates within the organisation - what touchpoints exist between the offered services and the users, whether these are efficient enough or certain changes are required.

The last level represents the design of the service encounter. The service blueprint is the tool on focus here. It illustrates all interactions between the service and the user. Various alternatives of a touchpoint could be considered before choosing the best one. That process might require multiple tests to determine the final choice.

Value Constellations

Figure 10 shows the sources of information the incoming students get access to – before applying at AAU CPH and after. Despite the availability of the services offered by AAU CPH, not enough students become aware of them. Somehow, they fail to follow the predetermined chain by the university, which results in poor student experience.
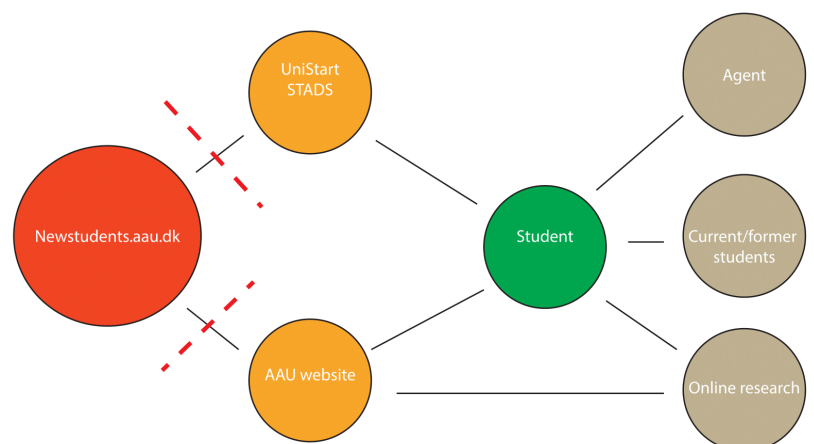
Figure 10

The mapping of the services allowed to visualize the connections of the services and re-think the way they are presented to the students. As illustrated on figure 11, a new system suggested by the AAU CPH's staff should get in
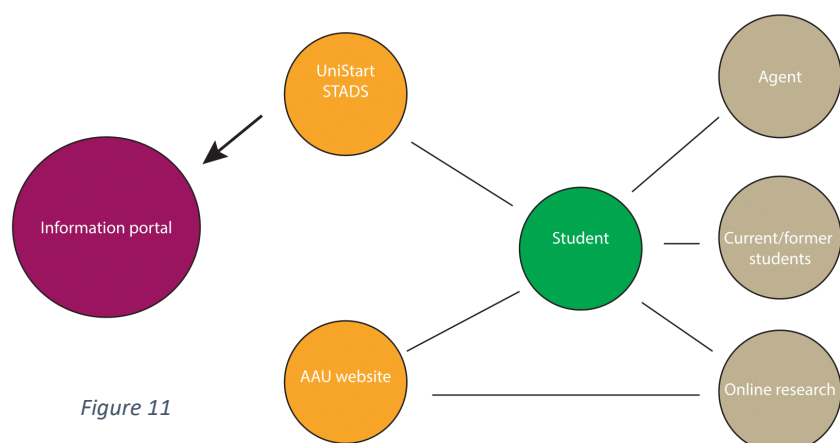

Figure 11

place, which will ensure that all students run through a process of getting familiar with the offered services by AAU CPH and the vital steps for successful start as a student in Copenhagen.

To be able to better perceive what happens to the students and make their experience more efficient and effective, I drew the service delivery system (Tax, McCutcheon and Wilkinson, 2013). Figure 12 is composed of two parts. The one above is the current one, where the students wander in attempts to find information and services on their own. The below one represents the future, where the students are put in a much better setting, by being guided from one service to the other in a structured manner.
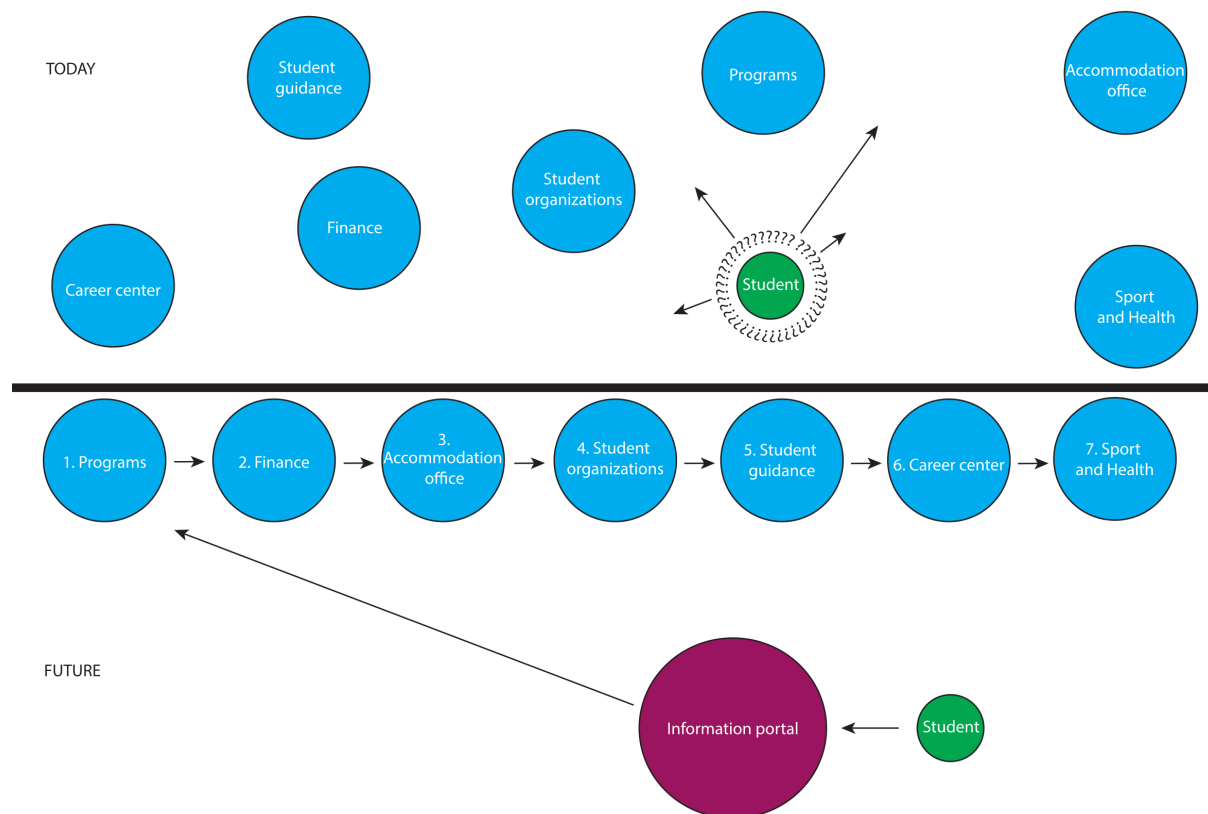
Figure 12 Service delivery system

After all collected information was processed, I used the 5 Ws (Gersbach & Schneider, 2015) to define a second problem formulation.

Who is the user? – International students coming from EU countries.

What are they going to use? – they will use a system, which will improve their experience at AAU CPH.

Why are they in need of such system? – Because students have wrong ideas about the life in Copenhagen, the education offered by AAU CPH and do not prioritize the challenges they have to face correctly, due to lack of information at the right time, which leads to hard start in the city.

Where will that happen? – After they have applied at AAU CPH.

When will it be available? – The applicants will get access to the system right after they apply at AAU. All applicants experience a long waiting time, when they are impatient to receive an answer from the university and have enough time to get familiar with all sorts of information AAU finds relevant. In this way it will be avoided the information overload, which the students experience during the introduction days at the campus and in the first week in September.

How to improve the experience of the new international students starting at Aalborg University Copenhagen coming from EU countries through the service design approach?

Develop

In this section, I will describe how I developed the service concept and all the steps I took in order to move from ideas on a sheet of paper to an interactive prototype as well as testing it with all relevant stakeholders I had access to in order to get a proof my the service concept.

Workshop

I began the whole development process by organizing a second workshop with the same four students, who participated in the first workshop, at the same location. The whole process was supposed to take no longer than 60 minutes as promised to all participants. The main purpose of the workshop was to generate ideas for the content of the information system, which to be included in the final solution.

The task was to think about everything a new student could possibly be interested in getting information about before and after their arrival in Copenhagen. We began with a 20 minute individual brainstorming session, which generated a lot of ideas on different topics. I also took an active part in the session and contributed with several posted notes. After the time passed, we performed affinity mapping (Gray, Brown, & Macanufo, 2010). I needed to uncover certain patterns by sorting all data in a sensible manner. We clustered all posted notes into groups based on their similarities, which gave several categories to work with. That exercise gave one part of the data about what should be included in the information system as well as how it should be structured.


Picture of brainstorming

Picture of affinity mapping

Student life	Accommo-dation	Job	Contacts	Transport	Practica-lities	Culture, Danes, Danish	Student Guidance
Student activities	How to find accommodation	Workshop possibilities	Facebook groups	How to reach your place if the transport is not wokring	Info for things to do for free (as students we are poor)	More info about Danish culture	Contact with student representative
Social meetings, student party	Housing: how?	Info for work - job centers, companies that search for people	New people	Transport	Practical info like sales, police auctions, etc	Info for how/where you can start Danish	The academic process
Fellow students	Housing: where?	How to find a job	Contacts with previous students	Transportation information	Money	Danish language courses	Work culture (studying), Importance of teamwork in Denmark
Social events, gatherings	Accommodation video tutorials	Work info: areas of emplyment, Applications, Interview tips	Contacts of people	Public transport - information	Rent. tax. bills	What is Danish culture	Names of teachers
Places to visit, networking tips, cultural info	Info for accommodation(optional webpages, not common)	Info for the job market	Info where and how to meet people in your situation	Types of transport	Temperatures, clothes		
Student life	Accommodation info, Price range Location	Job opportunities for international students			Weather and climate info		
					Info for daily life: where to shop, how to find things you have at home		
					Information about health system in Denmark		
					Info for what to do if you get sick		

Figure 13 Affinity map

The second activity was sketching a user journey of the student after they have been using the information system of AAU CPH. Here, I assumed a role of facilitator and I was only writing on the white board. The user journey was corrected several times, like in the previous workshop, as new actions had to be inserted in between the different steps.
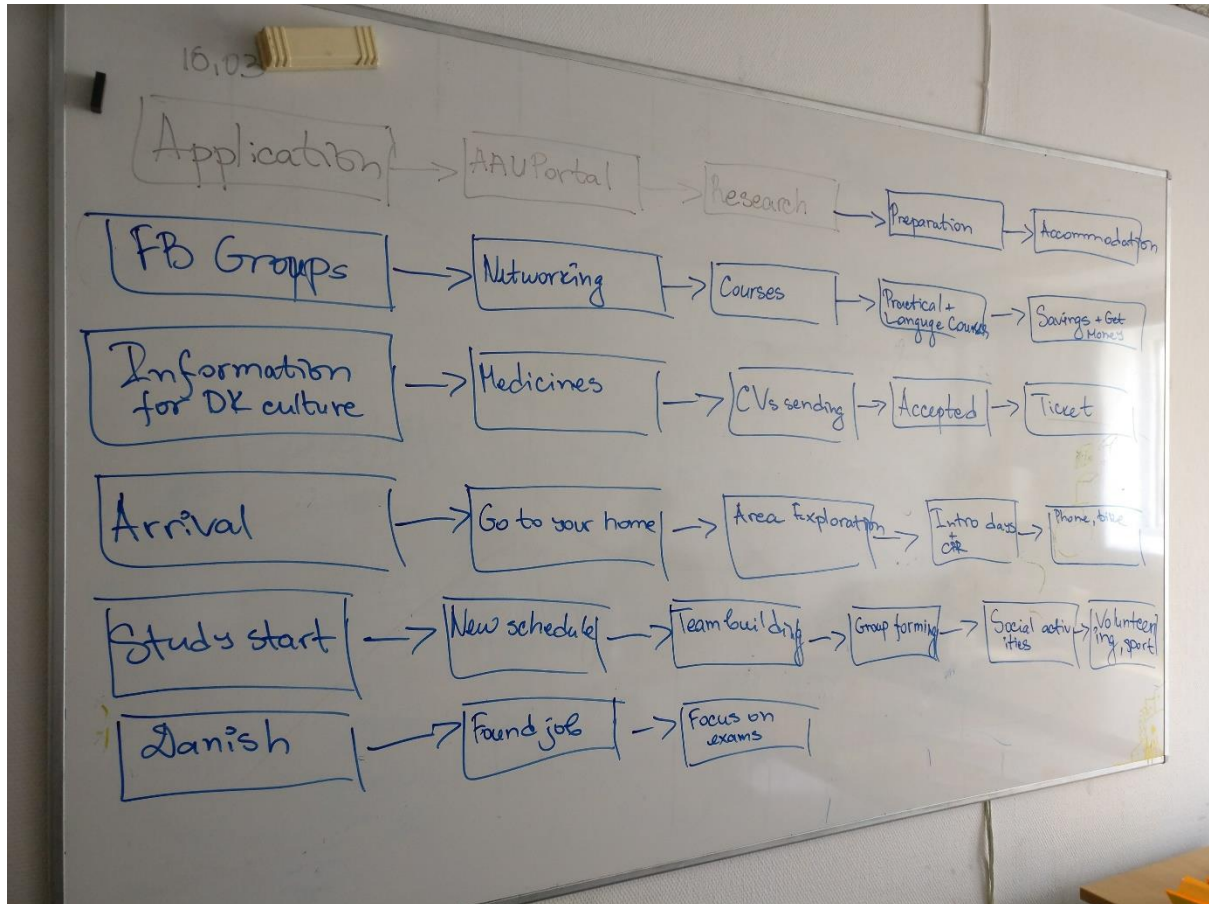
Picture of a new user journey

Meeting with International office AAU CPH

In order to ensure that I do not skip any important category, I held a short meeting with the international accommodation officer, student counsellor and international senior advisor at

AAU CPH. They were able to look carefully through the sketch I had prepared for them to get an idea of the complied information.

After explaining them the progress, they suggested that this system should be split into two main parts: from step 1-4 to step 5-7 in order to avoid information overload and make the students focus on the most important things before they admitted.
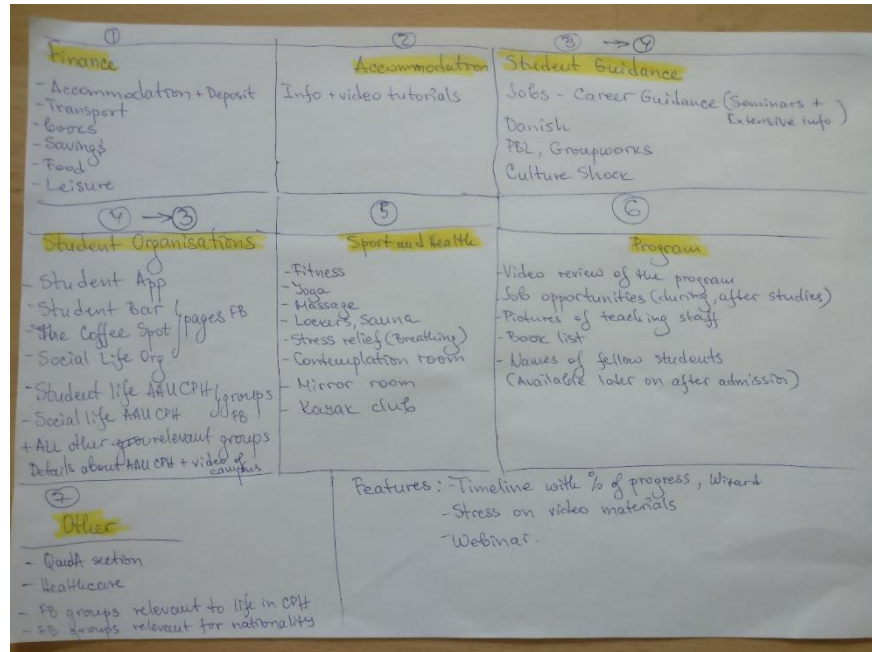
Picture of the initial sketch of the service architecture1

Unfortunately, they could not see any valuable additions as categories, but advised me to gain inspiration from the AAU's website for new students.

Further data collection

Last but not least, I contacted students in Bulgaria via Facebook, who will study in Denmark and asked them to list the type of information they would find valuable in such a system.

The final result was a number of design principles, which enabled me to design the wireframes of the system.

1. **The system should be incorporated with the existing IT infrastructure.** AAU has in place almost all required information, however the navigation does not deliver the desired user experience – students get lost and cannot find what they are looking for.

2. **It should be a flowing process, guiding the user.** Users should not be let to decide what and where to click, but guided.

3. **The progress of each user has to be tracked.** Reminder emails should be sent, when users do not behave as projected/have not completed the process.

4. **The information should be split into different steps.** Different information is relevant at different time – avoid information overload by opening only those steps, which are useful for the users at that moment.

5. **It has to guide the user all the way to the end.** Students should not be left alone to deal with an external website in Danish for example.

6. **Use different type of information media – text, video, images.** Different people perceive each of them differently.

7. **Has to be simple, but convincing why this step is important right now.** Students are not aware of the student life in Copenhagen and do not prioritise properly in time – postpone important actions.

8. **It has to trigger desire and curiosity.** What is in the next step?

9. **It has to give AAU CPH competitive advantage over other universities.** Why the students should choose AAU CPH but not CBS?

10. **It should encourage improvement suggestions from the users.** Feedback from the students will ensure the continuous improvement of the system.

Service Concept

The service concept was developed as a web wizard – a guide, which leads the user in every step they take, until the very end, when the whole process is complete. One of the main problems the service tackles is the navigation of the user to the right information at the right time. The system is designed in such a way, so the user will not be able to skip steps unintentionally and will get acquainted with all provided information. The primary aim of the

service is directed towards foreigners, who come to study at AAU CPH. However, it can also accommodate the needs of Danes, who come to Copenhagen from other cities and are not fully aware of the challenging life in the capital, as well as get familiar with the benefits offered at AAU CPH.

Integration within the IT services of AAU CPH

Currently, both bachelor and master students at AAU CPH are required to register in the internal system of the university UniStart. There is a slight difference in the user interface for each of these groups. All bachelor students are send invitations to register at UniStart once they have applied at AAU. Once they login, they can track their application status.

Picture of UniStart welcome screen - Bachelor

All master students are sent invitations to register at UniStart once they have been offered conditional/final admission. Their portal looks like that:

Welcome Georgi Mihaylov

By clicking on the buttons above, the following options will be available in UniStart:

AAUmail
Here you will find information about your AAUmail, which you are given when you commence your studies. Aalborg University expects you to use your AAUmail during your studies as all information from AAU to you will be sent to this AAUmail. Please note that login to the AAUmail is possible three months before commencement of study.

Order AAUcard
On this page you can order your AAUcard.

Change password
Here you are able to change your password.

Links
A page with useful links to everything you need to know regarding your study programme.

If you need help, please contact AAU IT Support via support@its.aau.dk or call tel. 9940 2020.

Enjoy!

Picture of UniStart welcome screen - Master

The master students can order their AAU card and access their AAU mail from it. Once the bachelor students get admitted to a program and accept the offer, their interface of UniStart will change and will look like the masters' interface. To improve the experience, master students should also be asked to register at UniStart as soon as they apply at AAU CPH.

UniStart architecture

What is important in the architecture of Unistart is the last menu – the Links menu. It contains the most vital information for the incoming students. However, the design does not attract enough attention from the students and therefore, they disregard it as not important. They believe the information there will become relevant once they have received their final admission letter. The vital information contained at www.newstudents.aau.dk is not communicated properly. The link is put 3rd, while it is recommended the most important information to be placed in the top third of the screen (Weinschenk, 2011). Therefore, the design does not indicate in any way how crucial it is for the student to access it. Moreover, the link is **not accessible** for the master students, because the URL is wrong. Furthermore, the

additional spelling and punctuation mistakes indicate that no feedback has been received from anybody.

Picture of critical mistake, which has not being spotted

Functionality of the system.

The New Students Information System (NSIS) should replace the Links menu. Moreover, it should come in front, not last and lead the user with its wizard towards the rest of the menus. The functionality of the system will be explained below with the help of mockup illustration interfaces. They are designed in Balsamiq using various tools, vector images, pictures of Copenhagen, text documents, introduction videos and video tutorials to visualize the steps that the students will experience. Later on, the designed interfaces will be used to prototype and test the service with different users. A link for the prototype will be available further below complied with 31 (52) different wireframes.

The service should enable all new students to be completely aware of what to expect and how to prepare for their student life in Copenhagen. No additional registrations will be required from the users. However, all actions of the users will be tracked, which will enable automated reminders to be sent to the users, if they have not completed a step within a predefined time period. The used videos should be uploaded to the AAU's servers in order to enable the tracking and statistics of the users' behaviour (Patton, 2018).
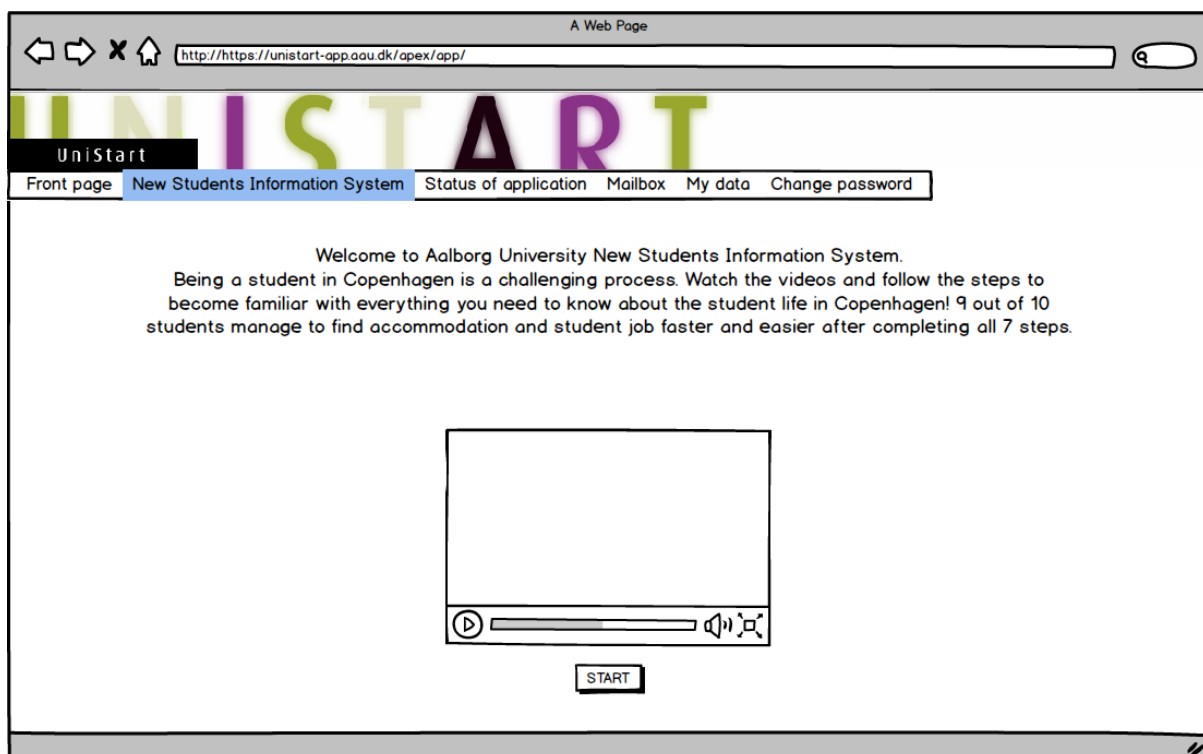

Figure 14 Welcome screen of NSIS

The idea to incorporate short introduction videos comes from the desire to use a face of a person, which will look right at the user, thus creating substantial emotional impact as the eyes are the most important part of the face. Furthermore, it is recommended that the users remember the provided information and therefore, it is needed that to be repeated in different manners (Weinschenk, 2011).
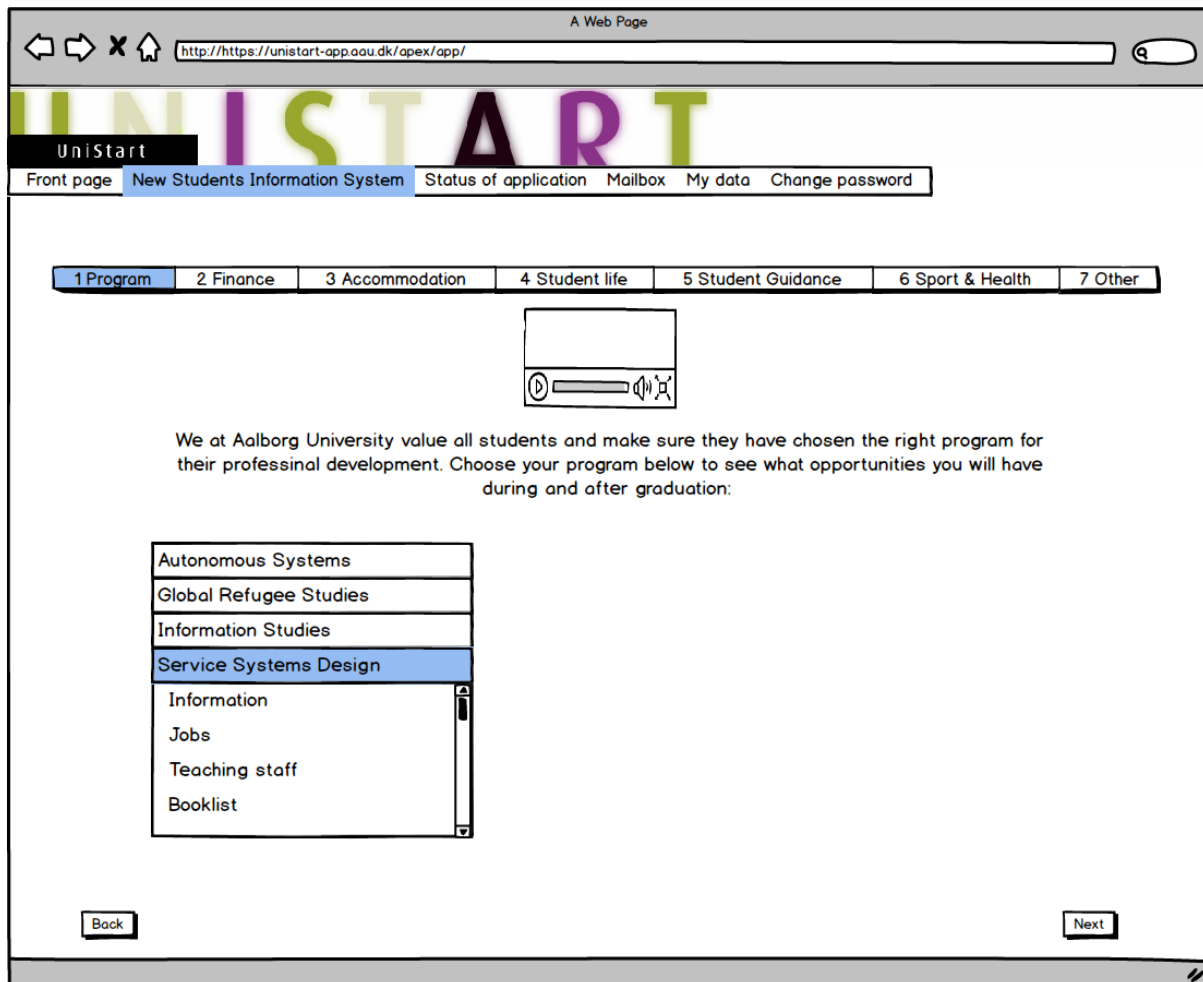

Figure 15 NSIS Program menu

To minimize the number of students, which drop out during their education, it is important each student to receive as much detailed information as possible about the specific program they have chosen. Failure to do so might result in low motivation, performance and ultimately stopping the program. Informing the students will make them see themselves working in a possible job position upon graduation.
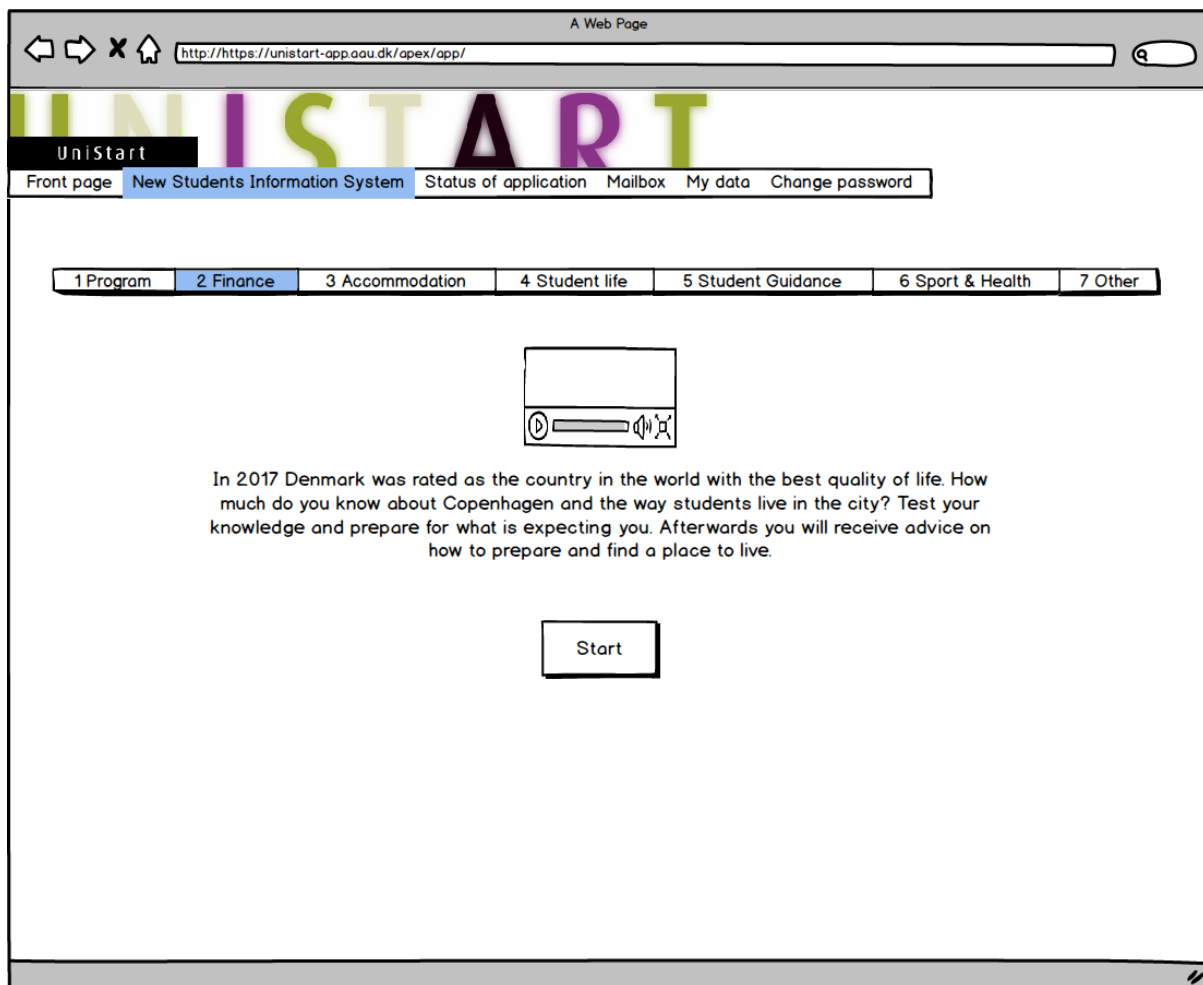
Figure 16 NSIS Finance quiz

Financing was pointed out by students and staff members of AAU CPH as one of the most important topics, which needs to be brought to the attention of all candidates. Therefore, a short quiz was designed to provide the needed information in a more interactive and engaging way – testing the knowledge of the candidates, making them guess and become aware of the reality. Eight questions were prepared for the prototype, but this number can increase upon request.

Figure 17 NSIS Question 1

Figure 18 NSIS Answer 1

Figure 19 NSIS Accommodation menu

Ensuring accommodation is the biggest problem of the international student in Copenhagen. The student housing covers only around 20% of the total number of students in Copenhagen (Ministeriet for By, Bolig og Landdistrikter, 2014). Not knowing how serious this issue is and the portals being designed in Danish results in not enough registered international students, which by itself leads to housing complications. Therefore, raising awareness of the urgency as well as providing detailed video tutorials of the registrations is a must.

Figure 20 NSIS Accommodation guide

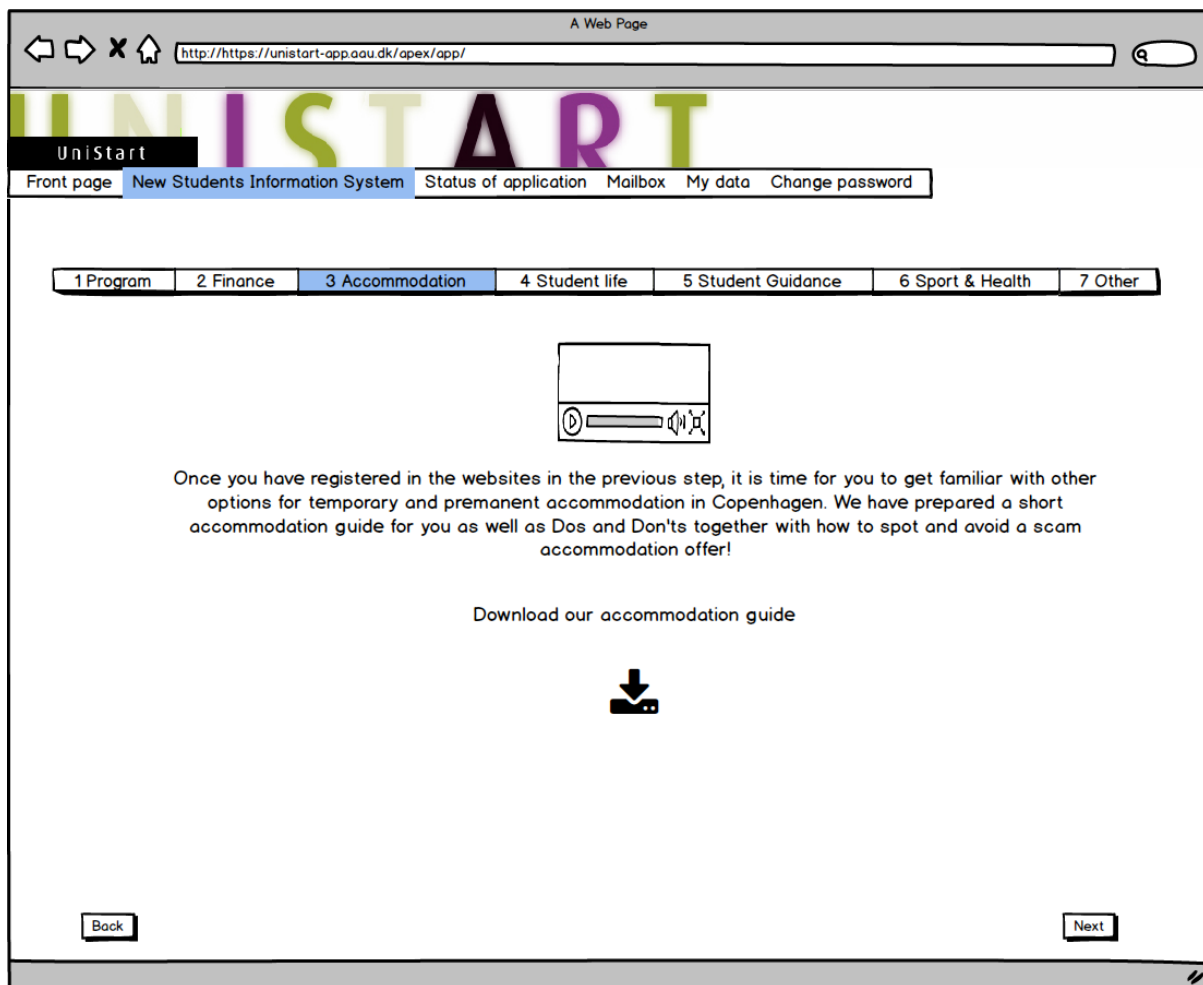Unfortunately, due to scarcity of student housing, additional options should become available to the students. However, usually these options are characterized by high risk. Therefore, a well-developed accommodation guide is required to prevent anybody become a victim of a scam accommodation offer.
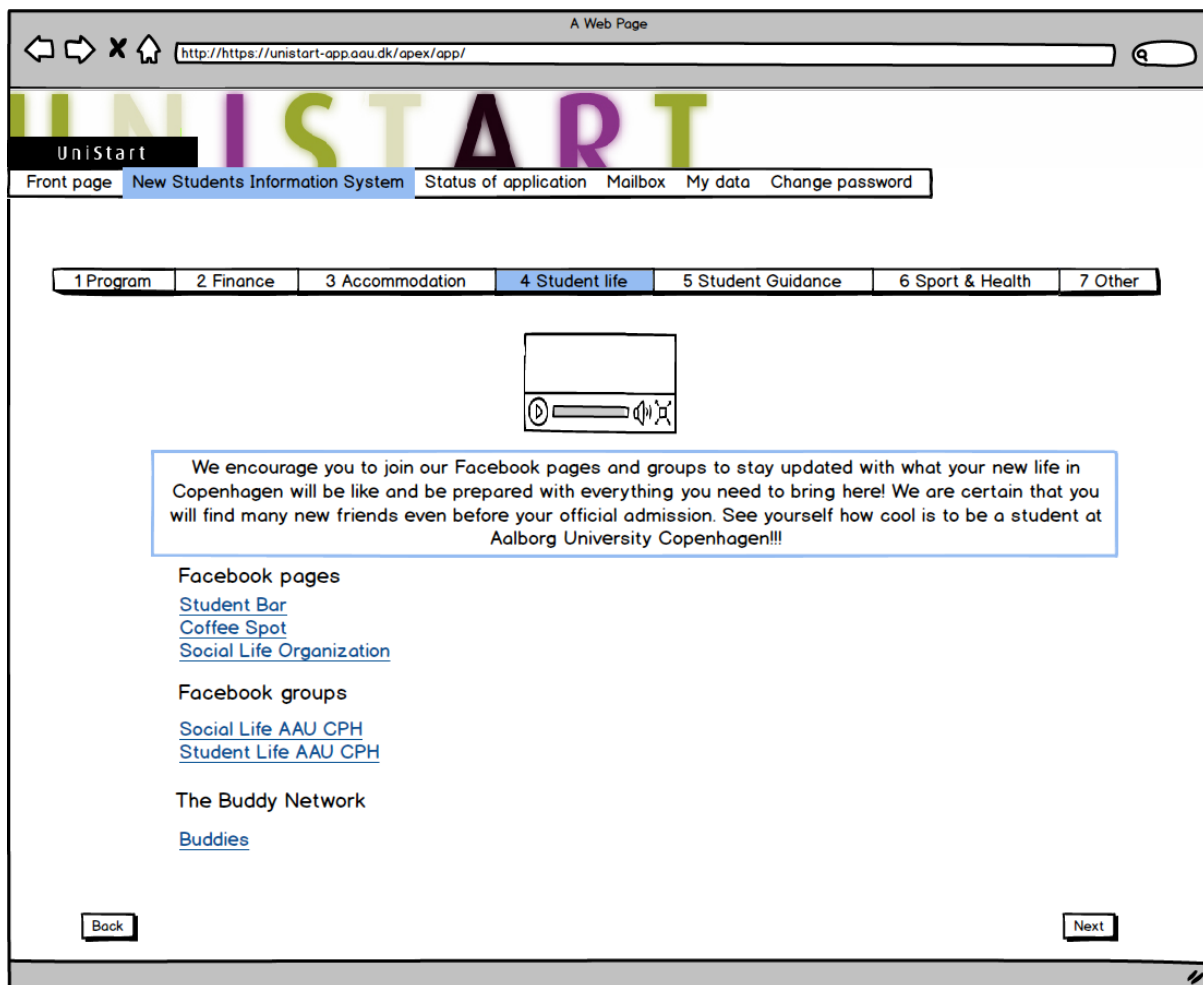
Figure 21 NSIS Student Life menu

Engaging students in the student organization has been a challenge. Not enough students are aware of what is offered at the university. Engaging as early as possible might be the missing link. Making people like and join specific groups and pages can only benefit the marketing funnel of AAU CPH, which will be able to push any messages they find relevant to the audience at any given time. This could be a strong channel of persuasion, which can make the students choose AAU CPH over another university in Denmark or abroad.
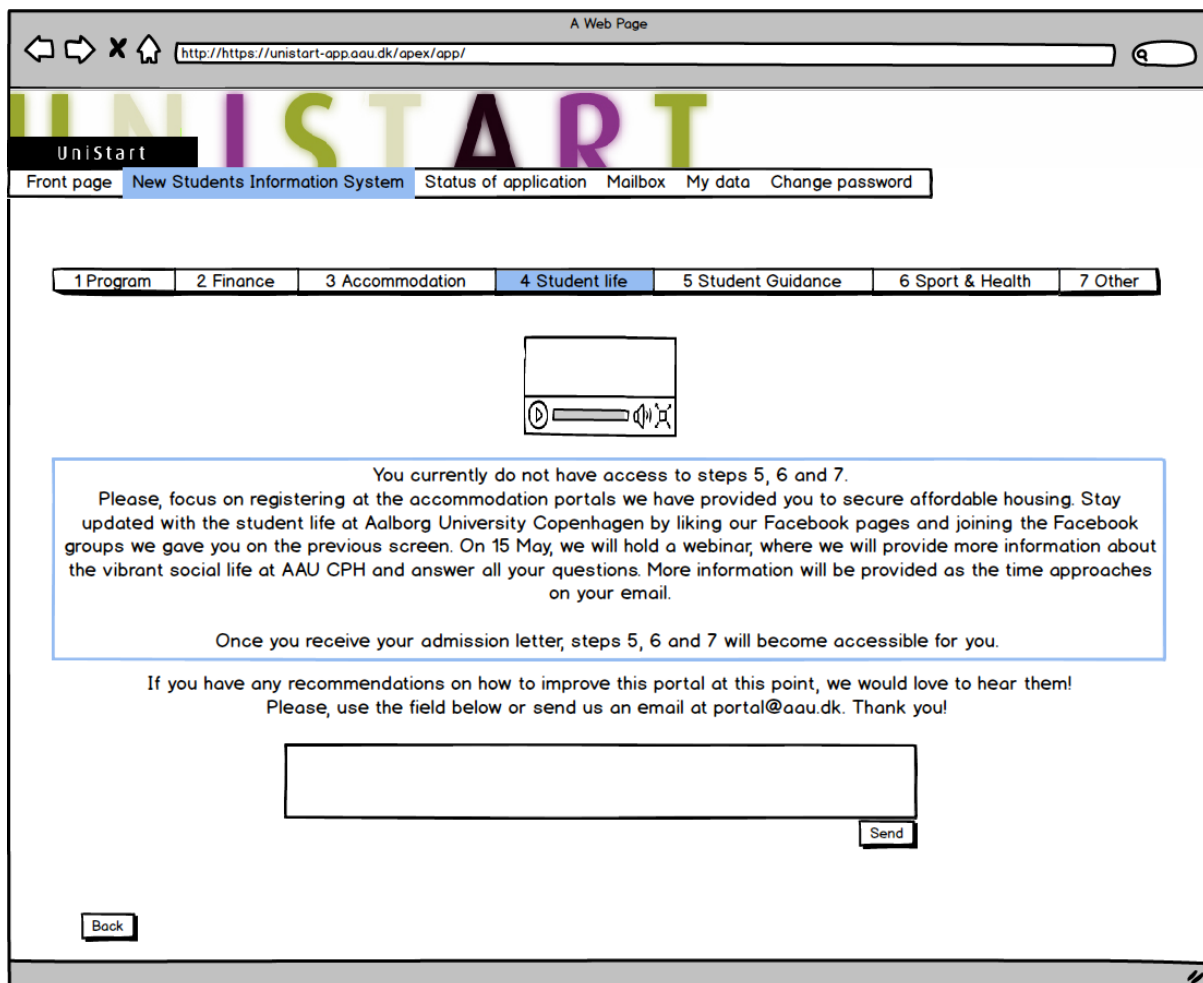
Figure 22 NSIS No further access menu

It is crucial to avoid the chance to create information overload. When the available information is too much, it becomes a barrier for the user and instead of helping them, it can have a negative impact on them (Bettis-Outland, 2012). To avoid information overload the students should not be given information they might not need. Certainly, this wizard has already provided a lot of material to deal with to this point. Therefore, the students should be allowed to prioritize their time and focus on the given tasks so far. Furthermore, it will create a sense of curiosity and impatience in the students, who will be looking forward to the rest of the steps.

Receiving feedback is essential, in order to properly innovate and improve the provided service. What better feedback than the instant one, after the user has just tried everything out. Providing an easy way to submit a comment is required for a successful development.
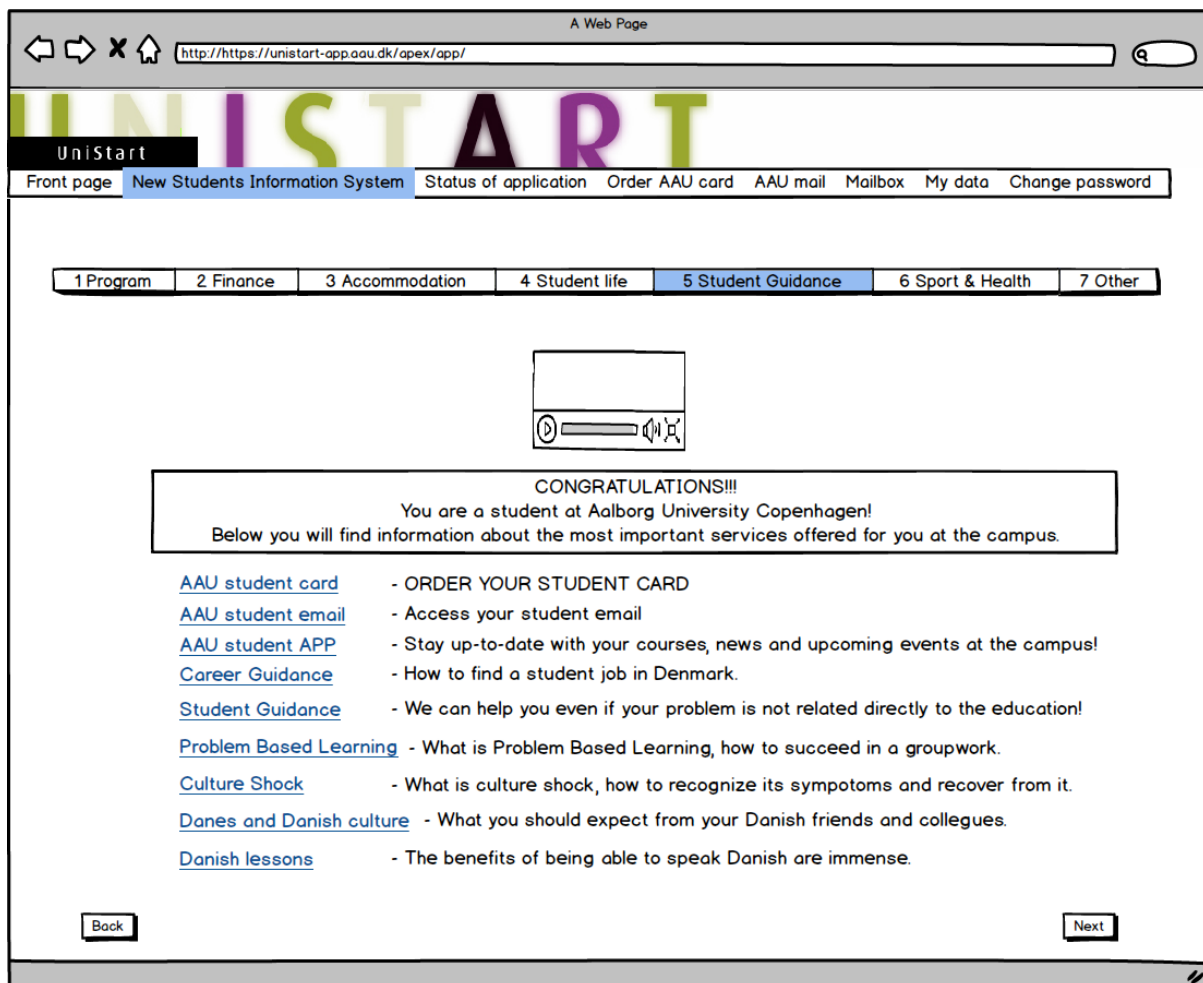
Figure 23 NSIS Student Guidance menu

Once the student accepts their admission offer, they will get access to the rest of the system. AAU CPH puts a lot of focus on ordering the AAU student card, therefore it is placed on the top of the list. However, the rest of the services are not less important and unfortunately students do not use them as much as they could and should, mainly because they are unaware of their existence. Raising awareness at this stage will build favourable preconditions for a change in the future.
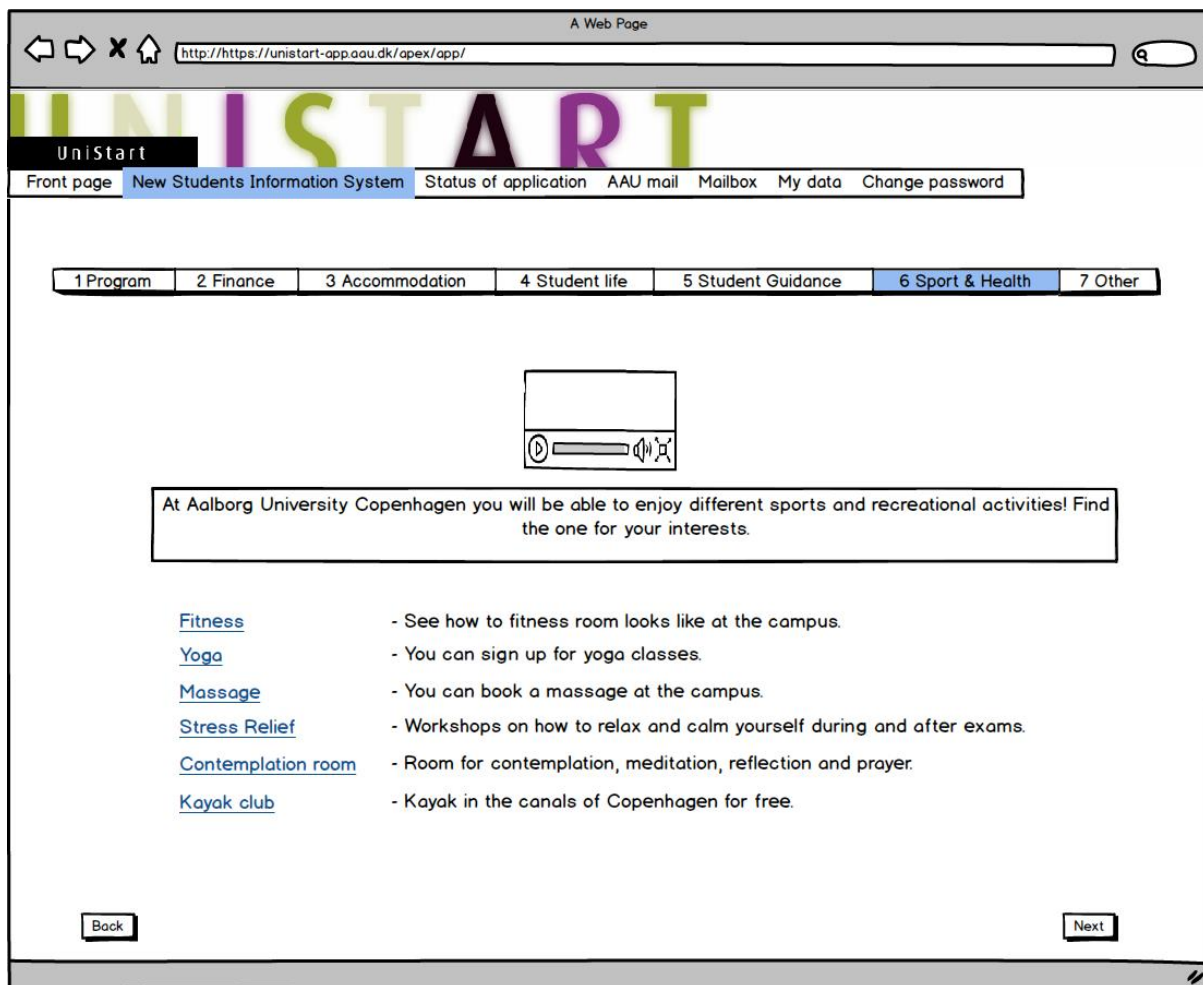
Figure 24 NSIS Sport menu

At the menu the student will have the opportunity to familiarize themselves with the different sport options and facilities available at the campus as well.
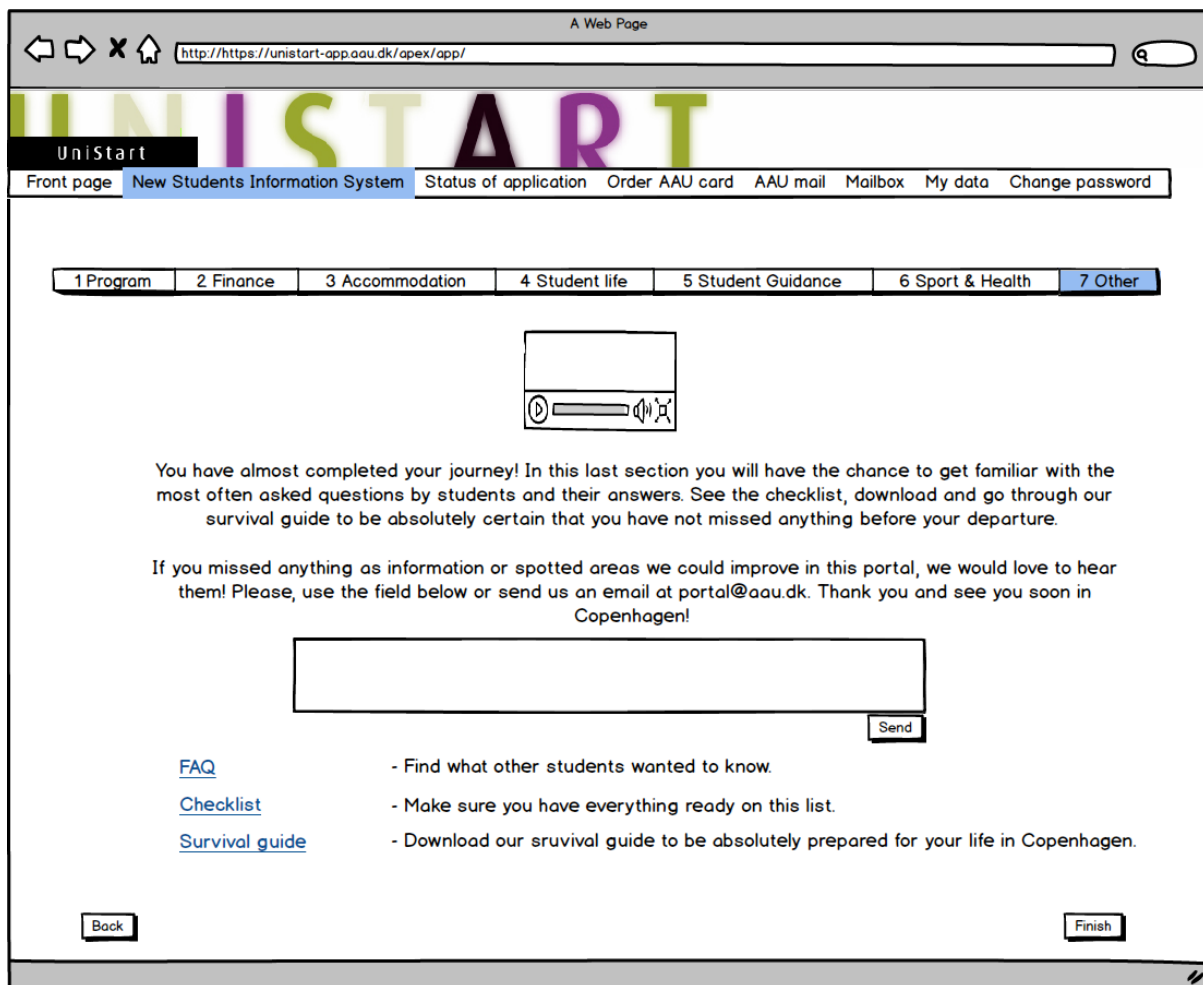
Figure 25 NSIS Other menu

The last screen should give another opportunity for a feedback from the users as well as provide any other additional information, which might be useful like frequently asked questions, check list and a complete survival guide for the life in Copenhagen.

Blueprint

A service blueprint is a model, which can illustrate the components of a service. Blueprints visualize how the user interacts with the service as well as with any other actors involved. Moreover, it can be distinguished between frontstage, backstage and support processes, which can all take part within the service (Stickdorn, Schneider, Andrews & Lawrence, 2011). The

purpose of the below blueprint is to exemplify the service in depth, its touchpoints, flow and how exactly it will operate.

The service blueprint of the New Students Information System is divided into four parts:

- Pre-service: Hiring personnel, designing and developing the system (fig. 26).
- Before service: The student getting aware of the system and logging into it (fig. 28).
- Service: The student uses the system - clicking on buttons, reading information, watching videos. Only the first 3 cycles of the program have been visualized in this blueprint in order to illustrate what the main actions will be. The rest of the cycles include similar actions to be performed both by the user and the system. (fig. 29)
- Post service: The student is able to leave feedback for an eventual improvement, reporting an error or anything else both via the system and by email. (fig. 30)

Figure 26 Blueprint - Pre-service

Before Service

	Timeline	Step 1	Step 2
Action		Student receives email with login information and link	Student logs in

Front Stage

User — User clicks on the link in the email | User enters login details and clicks login

Line of Interaction — Touchpoint

Web brouser — UniStart login page loads | Unistart welcome screen loads

Line of visibility — Touchpoint

Support Processes

IT System Backend — Registers action and sends data back | Registers action and sends data back

Touchpoint

Figure 28 Blueprint - Before service

Figure 29 Blueprint - Service

Service – 1. Program | 2. Finance | 3. Accommodation

Timeline	Action	User (Touchpoint)	New Students Information System (NSIS) (Touchpoint)	New Students Information System Backend (Touchpoint)
Step 1	Selecting New Students Information System	User clicks on New Students Information System	Shows New Students welcome screen	Registers action and sends data back
Step 2	Plays video	User clicks on video	Plays video	Registers action and sends data back
Step 3	Start Journey	User clicks the button Start Journey	Shows 1. Program screen	Registers action and sends data back
Step 4	Plays video	User clicks on video	Plays video	Registers action and sends data back
Step 5	Choose program	User clicks their specific program	Highlights program and shows options	Registers action and sends data back
Step 6	Choose information	User clicks on information menu	Highlights the info menu; New TAB opens with the link	Registers action and sends data back
Step 7	Choose jobs	User clicks on jobs menu	Highlights the jobs menu; New TAB opens with the link	Registers action and sends data back
Step 8	Choose teaching staff	User clicks on teaching staff menu	Highlights the staff menu; New TAB opens with the link	Registers action and sends data back
Step 9	Choose book list	User clicks on book list menu	Highlights the book list menu; New TAB opens with the link	Registers action and sends data back
Step 10	Continue further	User clicks on the button Next	Shows 2. Finance screen	Registers action and sends data back
Step 11	Play video	User clicks on video	Plays video	Registers action and sends data back
Step 12	Begin quiz	User clicks on the button Start	Shows the first question of the quiz	Registers action and sends data back
Step 13	Choose an answer - 8 times	User clicks on an answer and the button Next	Shows the result - right/wrong answer	Registers action and sends data back
Step 14	Continue further	User clicks on the button Next	Shows 3. Accommodation screen	Registers action and sends data back
Step 15	Play video	User clicks on video	Plays video	Registers action and sends data back
Step 16	Play video tutorials	User clicks on each video tutorial	Plays video	Registers action and sends data back
Step 17	Continue further	User clicks on the button Next	Shows next screen	Registers action and sends data back
Step 18	Play video	User clicks on video	Plays video	Registers action and sends data back
Step 19	Download accommodation guide	User clicks on download button	The file downloads	Registers action and sends data back

Line of Interaction — Front Stage — Line of visibility — Support Processes

	Timeline	Step 1	Step 2
	After Service		
	Action	Student leaves feedback via the New Students Information System	Student leaves feedback via email
	User	Student writes a feedback and clicks the button send	Student sends an email with feedback
Front Stage — Line of Interaction	Touchpoint	💻	💻
	New Students Information System (NSIS)	Loads a screen with a thank you message	
Line of visibility	Touchpoint	💻	
Support Processes	New Students Information System Backend	Registers the feedback and sends data back	Registers the feedback and sends a thank you email back
	Touchpoint	💾	💾

Figure 30 Blueprint - After Service

Motivational Matrix

Gives to ↗	Student	Career Center	Student Guidance	Accommodation Office	Student Organizations	Sport & Health
Student	Fully prepared for what to expect. Knows where and how to look for advice.	Participants in the organized events. Feedback for improvement. Productive time.	Participants in the organized events. Feedback for improvement. Productive time.	Less homeless students. Expand network.	New members. Development opportunities.	New members. Finances. Development opportunities.
Career Center	Knowledge. Confidence. Find jobs.	Publicity			Publicity. New members.	Publicity. New members.
Student Guidance	Solve problems. Settle down faster.	Publicity	Publicity	Publicity	Publicity. New members.	Publicity. New members.
Accommodation Office	Find housing at the right time. Detailed housing video tutorials.			Publicity. Alocate time to find new private homes. Let students help themselves.	Publicity. New members.	
Student Organizations	Expand network. Have a great time. Gain information.	Publicity	Publicity	Publicity	Publicity	Publicity. New members.
Sport & Health	Join activities. Expand social life.					Publicity

Figure 31Motivational Matrix

In the above motivational matrix diagram in Figure X is illustrated why these participants have interest in the proposed service system. The benefits each participant will gain from it have been listed in the corresponding boxes.

What is crucial here is aligning the actors as well as all of their motivations and assumptions to be part of the service in order to ensure a positive outcome (Morelli & Tollestrup, 2007).

As seen in the diagram, the main motivations for the participants are becoming more visible among students - raising awareness of their services. On the other hand, the students will benefit the most from these services in different ways, once they become aware of them.

New User Journey

Timeline: 1 March   2 March   15 May

User Journey:

| Apply | Register in UniStart | Step 1 Program | Step 2 Finance | Step 3 Accommodation | Step 4 Student life | Webinar |

Emotional State: Positive / Negative

Calm — Interested — Certain — Well informed — Pleased — Excited — Pleased

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Timeline: March - July   Middle of August   End of August   1 September

User Journey:

| Conditional/Final admission | Step 5 Student guidance | Step 6 Sport & Health | Step 7 Other | Permanent accommodation | Arrival in Copenhagen | School year start |

Emotional State: Positive / Negative

Overjoyed — Satisfied — Excited — Well prepared — Relieved — Thrilled — Excited

---

Timeline: September   October   15 October

User Journey:

| Apply for documents | Attend career center event | Job search | Attend social events | Join student organizations | Expand network | Start Danish |

Emotional State: Positive / Negative

Calm — Interested — Confident — Curious — Curious — Satisfied — Optimistic

---

Timeline: October - November   November - December   25 December

User Journey:

| Find job | Exams | Christmas |

Emotional State: Positive / Negative

Jumping joy happy — Prepared — Extremely happy

Figure 32 New User Journey

69

The newly created user journey (fig. 32) illustrates the impact the new service can have on the students, the steps they go through as well as the change in their emotional state during their first six months in Copenhagen.

As it can be seen, the new user journey differs significantly from the old ones. Not only the steps undertaken by the students are different, but their emotional state is drastically contrasting. When in the first user journeys, the users have ups and downs and encounter various unpleasant situations, the new one enables them to get familiar with everything they could possibly encounter beforehand and are well-prepared for their student life in Copenhagen. The emotional state, respectfully, does not go under the positive line indicating that students manage to cope with the challenges they are presented and enjoy their time at the new environment.

Only one new user journey has been created, as the concept will work and impact all students in the same way, no matter if they are bachelor or master ones.

Webinar

As already shown in the benchmarking, other Danish universities use webinars in their marketing channels. What are the benefits of the webinar?

Figure 33 Google Trends – Webinar

(https://trends.google.com/trends/explore?date=all&q=webinar)
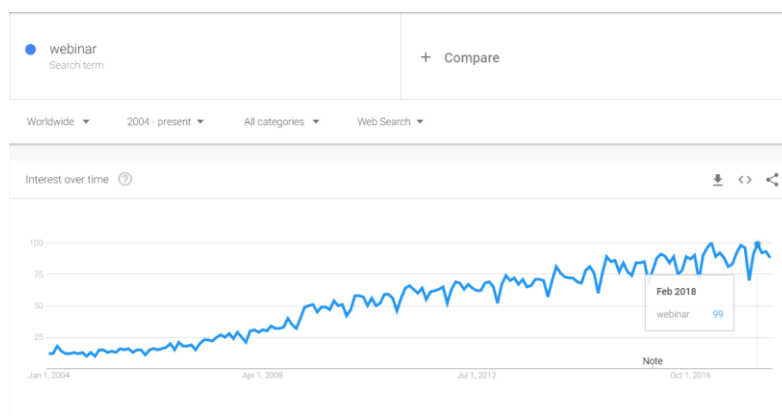
- It is relatively cheap to make a webinar.
- It humanizes the organization – all students will be able to see via live stream who are the people working and studying at AAU CPH.
- Becomes a thought leader – gain trust of the students by showing that AAU CPH is aware and can solve their problems, bridging the gap from the very beginning by becoming closer to them.

- Engages the students – it is a powerful marketing tool, which can make the students choose AAU CPH over other universities in Denmark or abroad.
- Proves the value of the product/service – having the opportunity to answer live questions of the students attending the webinar is a crucial point, which can affect the user satisfaction in a positive way (Petrova, 2018).

Interactive Prototype and tests

In order to be able to test the whole concept, the initial number of 31 wireframes was extended to 48 and later on to 52. After their initial sketch on a paper and their digitalization in [Balsamiq](), I used [Invisionapp](), to create the functionality of the prototype. That allowed me to test and improve the wizard with different user groups, which led to certain changes and improvements. ([Link to the prototype]()) The overall time for making the complete functionality with its improvements took a lot more than the projected time, which was over 30 hours of creating and active implementation of upgrades.

I began the tests with students, who had applied at different universities in Denmark, but are currently in Bulgaria. I carried out the tests via Skype as I requested from each student to share their screen, so I can observe their behavior. Moreover, each of them was asked to think aloud as that would give me a better idea of what is going through their mind. The sessions were recorded with a screen recording software, which later on allowed me to go over the test multiple times and analyze it more in detail.

First test student

The first test student asked if he could speak in Bulgarian, as he felt more comfortable. ([Link to the test video]()) At that time I did not consider language as so important factor. However, the evaluation of the test would be limited if somebody else had to watch and listen and that person does not speak Bulgarian. Therefore, as I would expect these prototype tests to be watched by the personnel of Aalborg University, all other test students were asked to speak in English for the above purpose.

The student liked a lot the introduction videos, which made clear to him what each screen would give him. Moreover, he liked the quiz for the finance too, as it made him aware of the needed information in a way he did not expect, but enjoyed a lot. The accommodation tutorials were not something new for him, as he has already used similar to apply for his accommodation, due to the fact that I have been assisting him in order to apply at several Danish universities. However, he did express his appreciation, as he had found it difficult to deal with the Danish language. He shared that when he is looking for information, he tends to

like facebook pages, especially when it is important and something tightly connected with his near future.

His overall evaluation was that he found the system quite useful. It contained a lot of information and therefore, he suggested that each student should go over it slowly and carefully. He liked the fact that it is spread over two steps – before admission and after admission, which will give the student focus on the right steps at the right time. He could not identify anything that he would like to find, but did not. However, he mentioned that the design of the system could be improved, but he saw a big potential in the functionality.

Second test student

The second student was situated in Bulgaria as well and we performed the test via Skype with a shared screen. The test was also recorded (link) for the same purposes. Unfortunately, she was time pressured, but still managed to conduct the test, although she did not watch all materials till the end. This particular student has applied to only two universities in Denmark – Copenhagen Business School and VIA University College.

She liked the introduction videos referring to them as "Really useful". She did not get the idea of the screen with the programs, which was probably partly due to the fact that she neither read the explanation text, nor did she watch the whole video. However, that made me think whether I need to improve this somehow. She was also not aware how to really operate with the prototype, which made me redo the explanation screen in the beginning of the prototype. Once she realized what to do, she labeled the provided information as "Really helpful".

The different screen size was also causing problem for her to easily navigate back and forth, which made me extend the clicking area, to avoid further complications.

She found the finance quiz "interesting" – something she has not seen before and enjoyed that she could give right and wrong answers. She labeled the quiz "different, in a good way".

She was also aware of the video tutorials, as she had already used several to apply for her accommodation. However, she mentioned that these tutorials are really helpful. When she looked at the accommodation guide, she liked the specific links to different websites and labeled them as "really great".

When she proceeded further on to step 5, at that time the design allowed the person to click randomly on the provided links and she skipped the so important step as stressed by the Aalborg University – ordering of the AAU student card. That made me think that it would make sense to change the design and give the students each option in a separate step, or at least the one for ordering the AAU student card. In this way, students will not be able to skip it. They will have to order the card, before proceeding to the other steps.
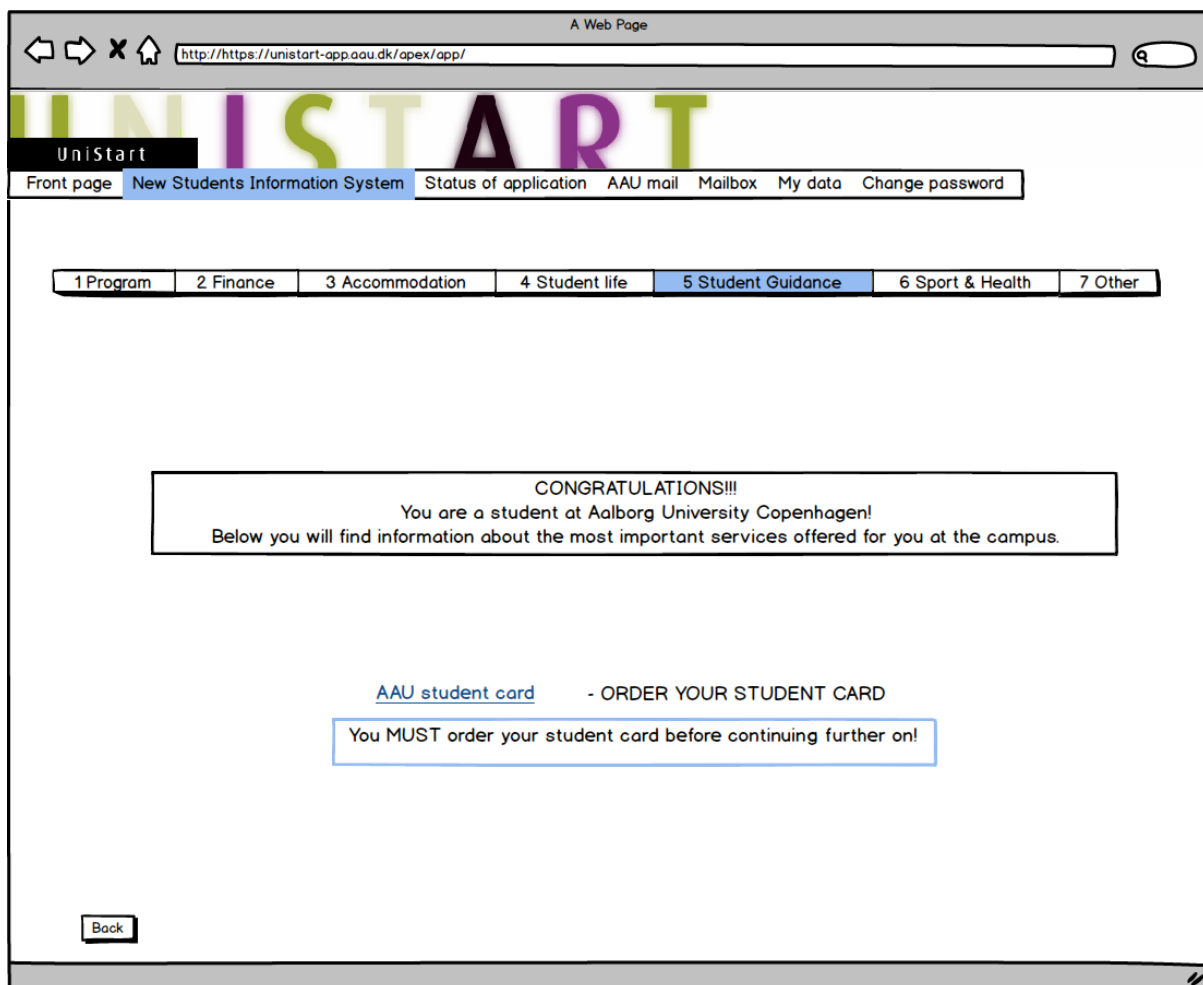
Figure 34 AAU Card order

She liked a lot the direct links to the different services because she could receive information straight from the source, thus making sure the information is credible and up-to-date. She enjoyed that she did not have to think much, but just follow the predetermined steps, which will give her all the information she would possibly need. What was interesting, at the end of the test she asked herself, or maybe asked me as her agent too **"Why have not I applied at this university?"**, which expressed her impression of the way the information was laid out to ensure she is informed at her best.

She concluded that the system was really helpful by directing to official websites – both of the university and the public institutions. In terms of credibility she enjoyed that, as she would not need to wonder whether the sources she is using otherwise are good enough. The quiz (trivia, as she referred to it) also made her a big impression. She could not give any suggestions for further improvements of the system at that point.

Third test student

After the first two successful tests, the third one was quite different. It was conducted with a current student, at a Danish. We performed the test over Skype. The link to the test could be accessed here: ([link])

What was essential here was to a high extent my fault. I did not fully inform this student what the test is about and I she got a false impression of its purpose - as she was more looking to test the functionality of the whole system – whether all menus were working, etc. The idea however was to evaluate the whole concept and the provided information, not the pure technical functions.

In the process of testing I tried to explain the real purpose of this prototype test. However, for some reason, her behavior did not change significantly. Nevertheless, the test revealed important issues related to the design as well as the functionality of the prototype itself. She struggled ordering the AAU student card. The reason was the design did not nudge her to click on the link, which was changed for the further tests. She also managed to navigate using the arrows on the keyboard, which helped me later on while conducting tests with the personnel of Aalborg University.

She concluded that everything being in one place is extremely useful for the student as they do not need to search for information. As for the design of the system, she pointed out that information is what should be on focus here, not making things look pretty. She liked the system and labeled it as a success.

After this test, I changed the design of the welcome screen in the beginning of the test, which explained more in detail how to operate with the prototype. Moreover, I created a second wireframe after the welcome screen, which puts the test person in a specific time and scenario – **"It is 2nd of March and yesterday you applied for a Master in Service Systems Design**

at AAU CPH. Today you have just received an email from AAU CPH, in which you are given a username and password to register at their internal portal UniStart."
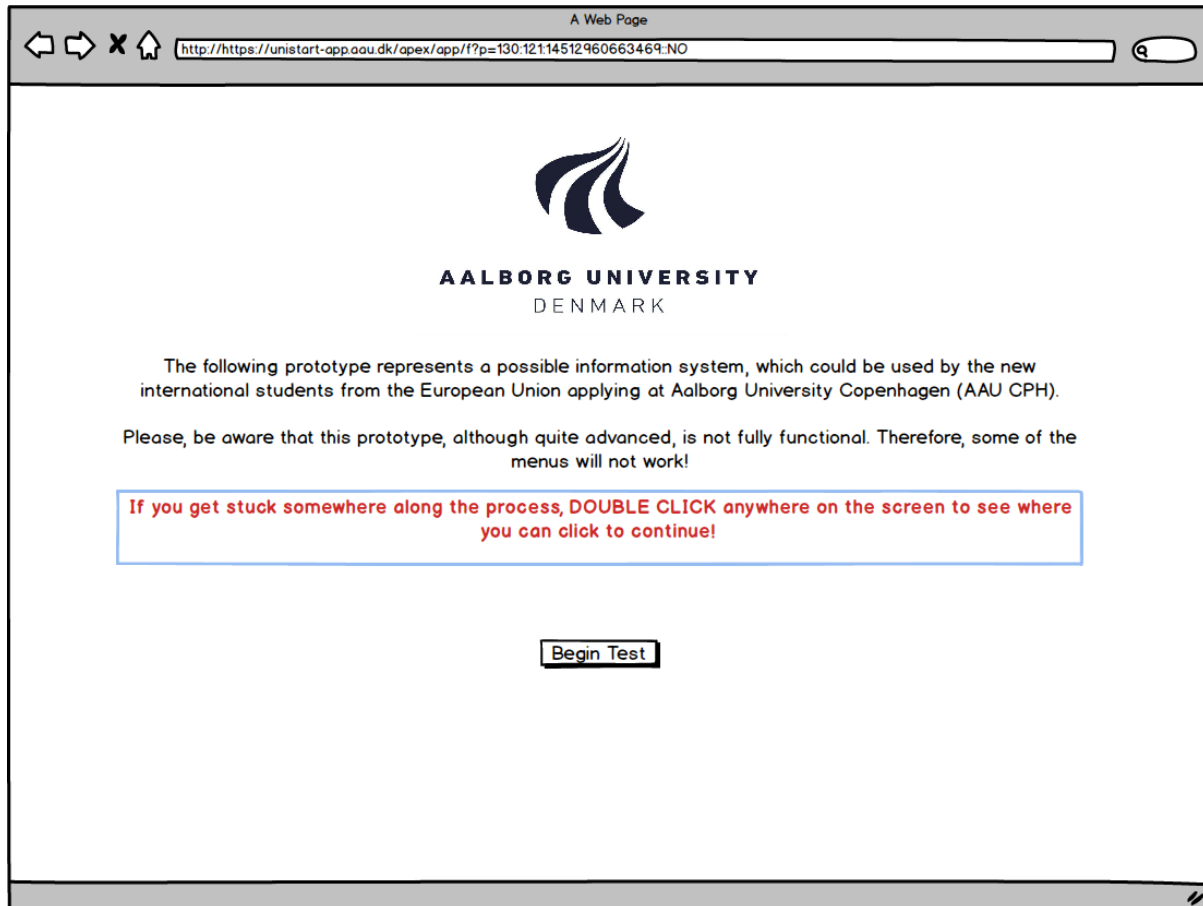
Figure 35 New Start Screen
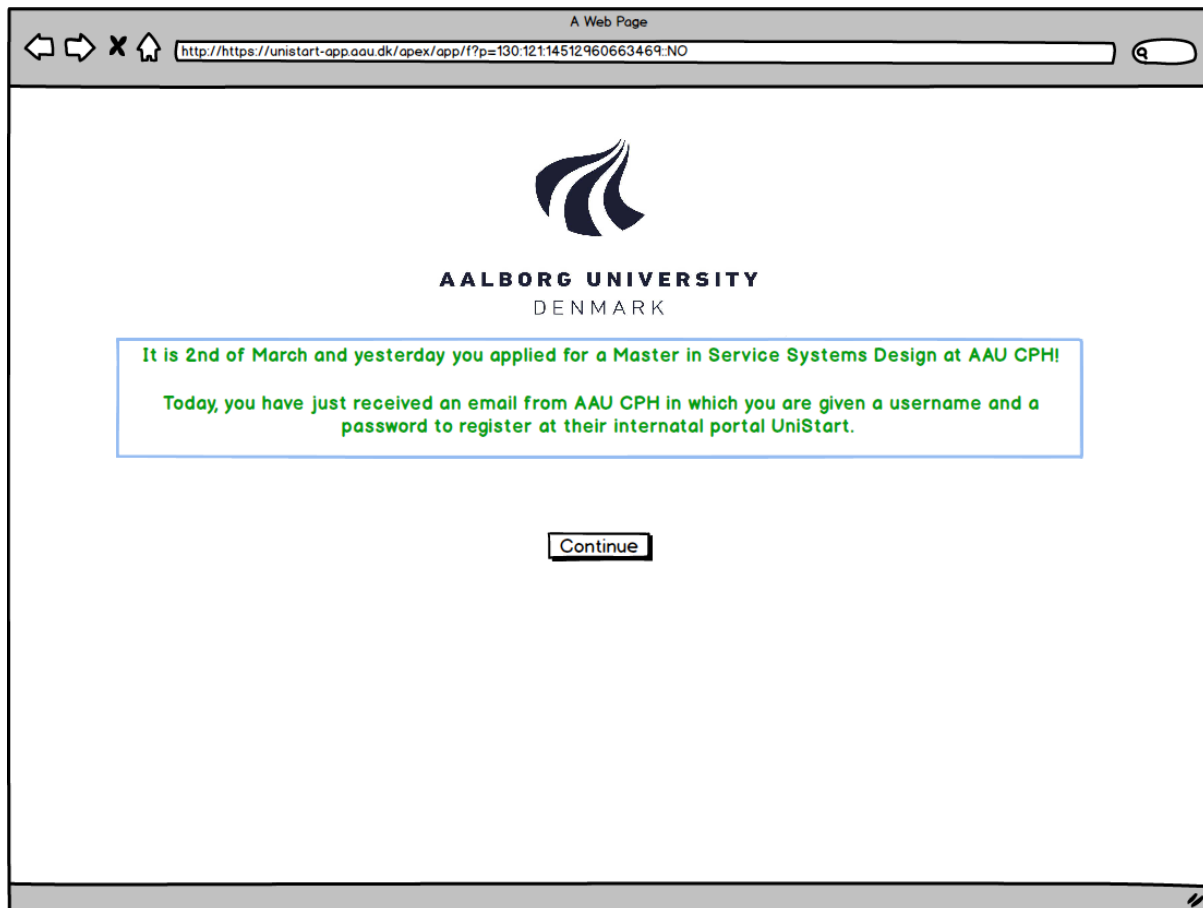
Figure 36 New Setting screen

These two wireframes along with my more detailed information about the test created a much better circumstances for the rest of the performed tests.

Fourth test – International Student Advisor, International Accommodation Officer, Student Counsellor AAU CPH

The fourth test was conducted face to face at the premises at AAU CPH with the International Student Advisor – Anne Sand, International Accommodation Officer – Deborah Vlaeymans and the Student Counsellor - Helen Pedersen. I had a scheduled 30 minute meeting with them all to test the prototype, which lasted over 45 minutes in the end. Unfortunately, I ran into technical problems with my laptop and could not record the test. I was forced to use the laptop of Deborah to perform the test at least.

I introduced them to the setting by showing them A3 sheets of paper with the current student journey and emphasized on the emotional state of the student, which goes up and down

(positive – negative). Shortly after, I showed them a new user journey of the same student, who has used my prototype. Due to the prototype, the journey and the emotional state had changed significantly – the student is well-prepared, happy and positive about everything that happens to them. Their response was that has sounded like a dream student.

Moreover, I had 2 sheets of paper on which I emphasized what the student and the Aalborg University want to achieve in their relationship. Furthermore, I had prepared an extra one explaining how all these desires can be fulfilled. Once I was ready to present the prototype they were impatient and said they were so excited to see it.

They were already familiar with the finance quiz, which did not trigger any reaction. However, the video tutorials made them point out how smart that has been to implement. They liked the idea of stressing on the importance of registering at the accommodation websites, which was emphasized on the following screen by the introduction video. They reacted positively on the accommodation guide, too.

They pointed out how great an impact the videos could have on the students as they could listen and see the face of the university, instead of just reading pure text. They emphasized on how much they enjoy the fact that I have stressed on registering for accommodation again and again, as step 4 repeated that, one more time. They believe that the system is a great way to make the students do what they are supposed to do. Moreover, I had cut down to the most important things the students need to do in order to have a good start in Copenhagen and at Aalborg University. Furthermore, they expressed their opinion that such a system would be great for the Danish students as well, with a different kind of setup, as Danish students have also problems with onboarding, however in a different manner.

As they were aware I was going to perform a test with the Aalborg University admission office in Aalborg, they could only hope to have the system approved and implemented as they were very impressed from the final result and all the efforts I made to keep going.

What I got out of this meeting was proof of concept, which encouraged me to pursue the goal to have the system implemented, as it was clearly something, which would benefit everybody.

Fifth test – Study Environment Committee AAU CPH

The fifth test was conducted face to face at the premises of AAU CPH with two members of the Study Environment Committee – Simon Clemmensen and Katrine Boas. I had an arranged 30 minute meeting with them to show them the prototype. Unfortunately, they did not allow me to record the session.

My presentation began in a similar manner as with the previous test. However, here I spoke briefly about my background as an international student, who had been living both in Aalborg and Copenhagen and my extensive experience as an educational consultant.

As I had to stress on the differences between the two cities, I had prepared another sheet of paper. Having that ready, made me look well-prepared, as I could show them visually the differences once they asked me to elaborate more on the differences between Aalborg and Copenhagen.

I showed them the two user journeys – old and new one and how the emotional state of the student changes. The student journeys have had a huge impact, which turned them into a very powerful tool in terms of persuasion. I proceeded with explaining and showing at the same time what Aalborg University and the students want and how we can achieve that.

I let them interact with the prototype. However, they stressed that they might not be the right people to talk to about the implementation of the idea and they suggested that I should contact the administration in Aalborg. They did not go through the whole prototype, they stopped after seeing it by step 3 – accommodation.

What Simon said was that he has seen enough and that this would be a huge improvement on what has been offered until now. He liked the approach and the details they have seen so far – making it more interactive, more like a one stop place for the potential students, making it possible to follow where they are in the process. They stressed on that Aalborg University can be more visible to show the new students how difficult is to find accommodation and be prepared with everything Copenhagen will challenge them, including living two hours away from the university for the first few months for instance. They believed that in terms of nudging the concept is the right way to go.

Moreover, they added that Aalborg University is a world class in terms of rankings, but we fail to communicate and attract the best talent. What the university lacked was strategic communication and Simon pointed out that this concept is strategic communication. He liked

it and he urged me to continue working on it. He expressed his hopes that his colleagues in Aalborg can also see it for what it is.

What I gained from this test was another proof that this system could be extremely valuable. Despite not talking to the right people, as stakeholders at the university, the opinion of Simon and Katrine made me absolutely confident that I could solve the issues the students are facing when arriving at AAU CPH. Moreover, the materials I used were exceptional in terms of communicating the idea and the reasoning behind it. The audience could grasp everything with ease allowing me to move on with my predetermined agenda without having the need to make additional explanations.

Sixth test – Study Administration, Study IT - Aalborg University Aalborg

The most important test I had to conduct was with the Study IT and the administration of Aalborg University, situated in Aalborg. However, I had an extremely short timeslot where I could perform the test – one day only (Friday) within the same week I contacted them to ask for the meeting! In order to succeed and arrange such a meeting I had to engineer a plan, which could guarantee me the success I was looking for.

For the purpose I used my insight information and send an email to the Study IT, where I notified them about my background, process and prototype and the benefits they will get if I could talk to them. Furthermore, I used my contacts with Anne Sand, who promised to contact people with more administrative power in Aalborg, so they could hear what I had to say. Last but not least, I used the contacts I had already made with another person in the administration in Aalborg Anni Lunø, whom I contacted via email and asked her if she could have a meeting with me on Friday as well.

The result was I got an invitation for a 30 minute meeting with the Study IT, Lihn Huynh, on Friday in Aalborg. My persistence in discussing the concept with somebody from the administration resulted in being contacted by Jakob Stampe, who works at the study administration. The final result was a joined meeting between me, Jakob and Linh. Arriving early in Aalborg and me being time flexible proved to be essential as that allowed to pull the meeting time earlier, which in the end was extremely beneficial.

Unfortunately, I could not record the conversation and the performed test, as they feared we could discuss confidential information they are not allowed to reveal.

The meeting began in a similar manner as with the Study Environment Committee. I explained my background, my work experience and what I have been working on for the past few months. I gave a short example of what service designers do and then I proceeded with showing them the current student journey, so they could see how the emotional state of the new students in Copenhagen goes up and down. I got asked a question whether this student journey is the same for the students in Aalborg and Copenhagen, where I got the prepared sheet of paper with the differences of the two cities and explained why these will be different. I went on with what the new students and the Aalborg University want to achieve and then how we could complete these goals. Last, I showed them the new student journey, I briefly explained them the differences in the steps the student will take and how would that alter their emotional state.

Before proceeding to the prototype, I showed them a short video, which described the error in the IT system, which I had spotted due to the access I got from the students. What I stressed on here was that this error, although being minor in terms of the effort, which it will take to be fixed, had a huge impact on the incoming students, who would not be able to resolve it but simply believe that the website is experiencing technical problems. Unfortunately, that particular website is their main source of information and preparation for their future life in Denmark. Without having the access, they would struggle a lot more to find the information they need to answer their questions about their future in the country. The fact that this error has not been fixed for at least four weeks could mean that either nobody had noticed the error, nobody had clicked on the link, nobody had asked about why it is not working, nobody had sent feedback about it, etc. In any case, the Study IT was not aware of the problem and lacked the monitoring to spot it.

The video of visualizing the error built a strong base for the prototype, which would ideally provide the platform to receive feedback from the students, when they spot anything that might not work as it is supposed to.

After watching the very first information video of the prototype, what I observed was how people became defensive in terms of pointing out that it was the responsibility of the people working in the administration in Copenhagen to change the layout and structure of their pages inside www.newstudents.aau.dk. I believe that their everyday life of working within silos and focusing only on what they are told is their responsibility provoked such reaction. It was strange

to me to see this behaviour of putting the blame on somebody else instead of thinking why that has happened and how should we fix and avoid it in the future (Cran, 2016). In order to correct this unwanted behaviour, I pointed out that my desire with this prototype was to collaborate for a better solution. I would not put the decision power on somebody and rely on their expertise. Instead, I would base the design of the solution on research and creative thinking, which will exclude any choices the students can make today at www.newstudents.aau.dk. The idea is to make them follow a predetermined path, which we at Aalborg University have designed especially to fit their student journey and prepare them for everything they will face in the near future in their concrete city.

The interactive quiz about finance was met with joy and laughter and in the middle of it, Jakob suggested he should bring his colleague from the Student guidance, Lars Olsen, to join the meeting. A brief introduction to the concept followed, so he could catch up.

They all enjoyed the idea of giving the students detailed video tutorials for accommodation, but pointed out that it should be made explicit that this information system does not guarantee admission to the student. However, it provides essential information and steps, which need to be completed.

We discussed how the videos prepared by Aalborg University have been uploaded to Youtube and how the number of views is too low compared to when they have been uploaded. That indicates that the students either cannot find the specific webpage, or they just do not see the video on that page in order to click on it. Moreover, nobody can tell who are these people, who have seen the videos, how long they have been watching them, at what time, etc.

The meeting was extended from the initially agreed 30 minutes to over 90 minutes of testing and discussion. All three of them agreed that the information inside the system is very relevant for the www.newstudents.aau.dk website. However, they were not the people with the decision power but could not answer who these people are. They were trapped in a silo situation, where they did not know who is responsible for the implementation of certain changes in order to address them. (Cran, 2016).

They could see the potential of the system. However, they did not know how to implement it with the current IT infrastructure of Aalborg University. What they said was that the barriers are the bureaucracy and the many different intentions of people as well as the different platforms, which are interdependent.

They said that UniStart is a platform, developed by Aalborg University, which links to STADS and optagelse.dk. However, STADS is in the process of becoming obsolete and its place will be taken by another system. Unfortunately, nobody knows anything about it yet.

They were aware of the bad user experience provided to the incoming students by www.newstudents.aau.dk, but with the current IT infrastructure they stressed that their hands are tied as the website is not a closed one and they do not own the data. Furthermore, they suggested that I should talk to the people responsible for developing this website in Copenhagen to discuss whether any improvements could be made. They agreed that the visualization should be done in a much simpler and smarter way, have a checklist and flow.

They also suggested I should talk to their colleague Bo Pedersen, who is the project manager for system development. He has recently been working on an APP for admitted students and they believed he would certainly benefit from the concept.

They were also impeded by their current Service Management System – InfoGlue, which is pretty basic and limited. It is designed to have hundreds of web editors across Aalborg University, in order different people to edit the website. However, that leads to certain complications as it is quire decentralized and it does not include essential functions – like using bold text, which makes the editors to do extra work in order to reach the desired results.

On my question how would they solve the problem if there were not any barriers to stop them, they firmly said **that it would be something along the line of what I have suggested – one closed system to rule them all, having the flow and check list.**

They expressed their desire to receive the finished master thesis. They believed that it might come very useful for them as they are working towards more user friendly systems and need all the leverage they could get, as it would provide extra argumentation for them.

They concluded the meeting with saying that they think that **I have solved the problem I have been dealing with.** The ideas have been very relevant and the system only provides argumentation for getting a new solution, but they have been impeded by the current IT system with its limited usability. The presentation visualized very well that they need to provide a better flow for the students, once they apply at Aalborg University. After that, they have to give them the right information and guide them through how to do all the important things, so they will be ready and focused on their program, once it starts. Thus, the students will not be

lagging behind because they need to focus all their attention on trying to socialize and trying to find a place to live.

Conclusion of the conducted prototype tests

The conducted test revealed important information in terms of the practical implementation of the system. The contacts I obtained would be valuable for further development of the concept and most importantly finding the right people, who are in charge of allowing such changes to take place. The bottom line from this test, as well as all other is that such system is needed and it will resolve the problems, which it is addressing. However, finding the right way to implement it within the existing and upcoming IT infrastructure of Aalborg University remains a challenge, which needs to be further explored.

Deliver

The final stage of the Double Diamond model, which has served as the main skeleton for this thesis is the delivery stage. It includes all materials, which can enable the product to be developed and implemented (Design Council, 2005). This is a research project, but it will certainly deliver tangible artefacts to serve Aalborg University Copenhagen's purpose.

The following section will explain each of the deliveries and their purpose as well as how these should be used to achieve the intended goals.

Deliverables

Product Report

The product report will illustrate the main discoveries of the project along with visuals to support the facts. As time is an issue in today's world, the report will be kept as short as possible, aiming at the results and benefits. Moreover, it will suggest the eventual development and implementation of the product.

Interactive Prototype

The interactive prototype is the most powerful deliverable, as it illustrates how the product would actually work and the benefits the service could deliver both to the students and to the different departments of Aalbrog University. Giving the opportunity to the decision makers to interact with the service with a prototype, can be crucial in making the decision for implementation of the service.

Videos:

- Video of a future student in Copenhagen testing the prototype and her live reactions during the interaction.

- Video prototypes of the main topics included in the system will be provided to give an overview of how the final versions could look like.

- Video of UniStart critical error due to lack of monitoring/feedback from students.

- Accommodation tutorials – video tutorials of the different websites will be provided, to give an idea of how powerful this could be.

Quotes of Aalbrog University's staff about the product and the service it provides.

Service handover meeting

The service handover meeting will be held to deliver the above materials as well as discuss the achieved results throughout the process. The main focus will be on the conducted prototype tests with different stakeholders and the options they have suggested as future implementation opportunities. Moreover, the purpose of the meeting is to answer any potential questions as well as discuss eventual ideas on right implementation actions, which should follow along.

Reflection

To reflect on the problem statement I worked on (*How to improve the experience of the new international students starting at Aalborg University Copenhagen through the service design approach?)*, I managed to design quite advanced prototype, which certainly would have a tremendous impact on the new international students starting at Aalbrog University Copenahgen. The whole design process, which I ran through from data collection to prototyping and testing, ensured the involvement of relevant topics and tools for the final product, which is able to deliver the user experience Aalborg University should aim at in order to secure the best talent in terms of students.

Reflecting on the first personal goal (*To accomplish a whole design process individually.*), I should say that it has been a challenging process of staying motivated and focused to continue despite the barriers I ran into during the whole period. Lacking another person to discuss the results and next steps with or missing a second opinion when an important decision had to be taken has been crucial. However, the rewarding side of working alone is the gained knowledge and skills once you have dealt with the challenge on your own. Moreover, as much as the process has been stressful because of the workload, on the other side, not being dependant and let down by somebody else has been a relief as being the single person, who could deal with the issues.

The second personal goal (*To explore the analysis phase of my research and refine my technique for sorting through and gathering workable insight from qualitative research.*), has been a time consuming task. Conducting online interviews via skype as well as visiting students in the different parts of Copenhagen to get the needed answers was an extensive assignment, which required planning and a lot of flexibility in order to collect the needed data. Moreover, being creative in terms of rewards in order to attract students to participate in my research at the campus of Aalborg University Copenhagen was both questionable and rewarding. Furthermore, being patient and explaining what a user journey is to the participants and how they should visualize theirs has also been a challenging task. Putting into practice different techniques like affinity diagram was not less vital for the ultimate success of the concept. All that proved to be essential during the data analysis and allowed me to design the right solution, which also tackles the right problem.

The third and fourth personal goals (*To deliver an impactful solution, which will be essential for all international students coming to Copenhagen. To create a meaningful prototype of the service, which can give an idea of the impact of the solution.*), have been fully accomplished if I take the feedback from the Aalborg University's staff as credible. The completed tests revealed only positive comments both in Copenhagen and in Aalborg. The interactive prototype was addressing the issues the students were struggling with and therefore the administration in Aalbrog as well as the Study IT expressed their desire to receive the prototype so they could attempt to implement it together with the current IT infrastructure. On the other hand, the administration in Copenhagen were so excited after they tested the prototype because they suddenly saw the problems, they have been facing for years resolved. During one of the tests with potential future students, after seeing what Aalborg University offers to its students, the girl expressed her regret of choosing CBS over Aalborg University.

The last personal goal (*To challenge different departments within Aalborg University to work together towards a common solution, which will benefit the students, the staff and the university.*) was partially completed due to the fact that I still need to follow on the process. However, the progress so far indicates the staff of Aalborg University both in Copenhagen and Aalborg realize how important it is to address the particular issue and work together. Being able to carry out three prototype tests in two consecutive days within an extremely short notice (2 days earlier as well as 1 day earlier), means a huge accomplishment. The credit goes both to the administration in Copenhagen as well as to the staff in Aalborg. Those who had tested the prototype could pass information about how crucial it is this project for the future improvement of their communication. On the other side, the administration in Copenhagen reacted almost instantaneously and dedicated personnel to familiarize themselves with the prototype. The end result was people not blaming the other department for the current situation, but instead embraced the challenge and started generating ideas on how to work together and solve the issue collectively.

Reflecting on the co-creation opportunities with the Aalborg University Copenhagen's staff, I should say that I should have explained how we as service designers work and that we are

heavily dependent on the stakeholders experience and insights to identify and tackle the right problems. While I was trying to schedule follow up meetings in order to keep them updated, they assumed I needed guidance related to my academic approach, which was not the case. However, that misunderstanding was quickly resolved as I managed to explain how I see their role in this process, as partners, who should contribute with their knowledge as they are the experts, who encounter the tackled problems on a daily basis. Fortunately, everybody could see themselves as a contributor to the solution, which played an essential role in the productive sessions we had, which allowed the design of the final prototype.

Discussion

In the introduction of the thesis, I emphasized that I wanted to explore how to break down the silo mentality within bigger organizations.

In this section, I will discuss this question based on the reflections on the case with Aalborg University and will try to give recommendations, which could be beneficial in addressing the issues and break down the silos.

Aalborg University is a huge organization, with departments spread in three cities. Its structure is extremely decentralized with each department assuming responsibility for themselves, including even the administration of specific webpages for a particular campus or service. Very few people are aware of who is in charge of what and whom they should contact in case they need to resolve a problem they have encountered. There is a feeling of disconnection, leading to isolation and powerlessness. It leads to a situation where one silo is confronting another silo, instead of collaborating together (Greenberg & Baron, 2003). This environment has been affecting the employees in a negative manner for a long time and the reaction of the Study IT, pointing out that it is the campus in Copenhagen's responsibility to make the design of their pages attractive and user friendly can only confirm that.

What I have observed was frustrated employees, who have been encountering the same problems for years, but nobody has assumed the responsibility to address them and ultimately resolve them. Instead, temporary solutions have been proposed and implemented. However, these in no sense have improved substantially the working environment of the employees or resolved the issues.

Onboarding of new personnel has not changed the situation and soon after the initial eagerness to initiate a positive transformation perishes, nothing can challenge the silo mentality, which has been ruling the organization for a number of years.

The size of Aalborg University, the big number of departments and employees, the differences of the cities and people, the different settings, the lack of frequent communication between departments and campuses, the bureaucracy and politics, all these factors have contributed to framing the organization into silos, which are isolated from one another and are focused on resolving their problems more or less on their own.

However, silos do not exist physically within organisations – they are more a part of the mental impression of the people working in the company, who share the same concept of the world (Diamond & Allcorn, 2004) Thus, a more secure environment is created by not letting anybody else, who is different enter the circle. Silos become barriers, which separate people with different mindset or personality and impedes bridging the boundaries. Furthermore, it leads to nervousness and panic in the staff members when they should visit other departments or take part in different meetings. Another negative aspect of the silos is when people within a silo become so distant that they could start seeing anybody outside the silo as a possible threat and become anxious, sceptical and arrogant towards them (ibid). All that results in lack of trust, respect and collaboration.

In order to solve the above problems, companies and management should start looking at the world from a bottom up perspective. They need to recognize how the various elements fit together, the importance of being different from yourself (Tett, 2015). But that should not be a task only for the management, but for each and every employee. If people look at their world from a different perspective without applying their prejudice, then a new world will open in front of their eyes.

To battle the silo mentality the top management of Aalbrog University could start thinking about how to drive creativity and look for collaborations between the different silos. It all begins with recognizing the problem and hold discussions about it. It is important to preserve slack, despite living in century where we do our best to be as efficient as possible. However, slack is important in terms of getting familiar with the circumstances and problems. Technology is key but when used in the right manner, where it stimulates the collaboration and innovation with people, who are different from each other. Furthermore, smart architecture can help people get together in their everyday life, exchange thoughts, ideas and cooperate in a new manner (ibid).

Cran (2016) has created a model called Four Levels of Leadership Awareness, which can be applied in battling the silo mentality negative behaviour. In its essence is the power of emotions and thoughts.

The first level is **Personal**, when people are disappointed with a given situation and ask themselves questions like: "Why me? How come I have to do this?" There is no power and pleasure for the person and the amount of stress is high.

The second level is **Blame**, which is better than the first one, but still people are powerless and angry. The thoughts here are: "It's not my fault, it's my colleague/boss/department fault." People feel frustrated and do not assume accountability.

However, the goal of the model is to let people realize where they are and shift to a top level.

The third level is **Learn**, where people are interested in what they could learn out of the particular situation in order to benefit from it in the future. This level allows the person to realize they have the power to choose what their next step will be.

The last level is **Share**, where the person does not only benefit but also shares the experiences and thus helps others improve. "How can we share our ideas to come up with a better solution for all?" Collaborating and transforming the energy to the people around, which helps them grow and inspire towards better results (Cran, 2016).

When people do not jump into conclusions, but instead pause and reflect upon the reality, silos can be transformed into opportunities instead of roadblocks. However, if people fail to do that, silos will do nothing else but end the creative initiative and cause disasters (Tett, 2015).

Conclusion

To conclude the thesis I should stress that I have gone through a whole service design process in developing new service for the incoming international students at Aalborg University Copenhagen. Along the process, I could observe how the whole organization was working within different silos, which were not collaborating with one another as much as they could and should in order to drive innovation forward. Nevertheless, when being challenged the people inside these silos were ready to share knowledge and work together toward a better user experience.

I strongly believe that the right mentality of the personnel is present. However, what is lacking is the strategic communication from the management, smart architecture and common practices, which can bring down the silos or said in a different manner, could use the silos to drive innovation and create opportunities for a brighter future.

I am extremely satisfied with the process in my case and I am positive that Aalborg University will implement the proposed service in any form in the near future. I am certain in the huge impact it will have not only on the students, but also on the staff and the image of the university as well. It will be the base for more innovation, which will follow naturally from the students, who will use it for years to come.

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APPENDIX 1

Conducted interviews

All interviews have been submitted as a deliverable together with this report.

New Students Information System – Aalborg University's recipe for success in Copenhagen

Table of Contents

Why nobody told me I should register for accommodation long before being admitted at Aalborg University Copenhagen. Now I am homeless, spent all my money and I am forced to return home….

Why nobody told me that it has been me all the time. I thought Danes are being silly for doing things differently, but then I realized that 2+2=4 and 3+1 is also 4…

Why nobody told me that by investing my time in Danish, I will land a dream job and start feeling accepted here?

Why nobody told me…

Why nobody told me…

Introduction

The purpose of this product report is to serve as a strategic tool in front of Aalborg University's decision committee, so that the proposed service concept (New Students Information System) can be developed and implemented.

The following service concept is based on interviews of former, current and future international students of Aalbrog University Copenhagen as well as other universities and academies in Copenhagen coming from European Union countries.

The information included in this Product Report comes from the more details Process Report, which has been the main deliverable for my master thesis.

Current situation in Denmark

Every year hundreds international students apply at the Danish universities and academies.

Unfortunately, most of the students are not aware of how difficult it is to find housing or integrate in Copenhagen – they are not prepared.

All that leads to hard start, increased stress, low performance, students dropping out along their studies.

One of the biggest problems of the international student is securing accommodation. Unfortunately, the student housing in Copenhagen covers only 20% of all students in Copenhagen. These are usually Danes as they know that they MUST register 3-6 months in advance at the right accommodation websites.

Along with housing, the students struggle with:

Finding a job

Socializing

Culture shock

Documentation

Danish mentality

Danish language

Practicalities

What happens to the student in Copenhagen? Too many bad events…
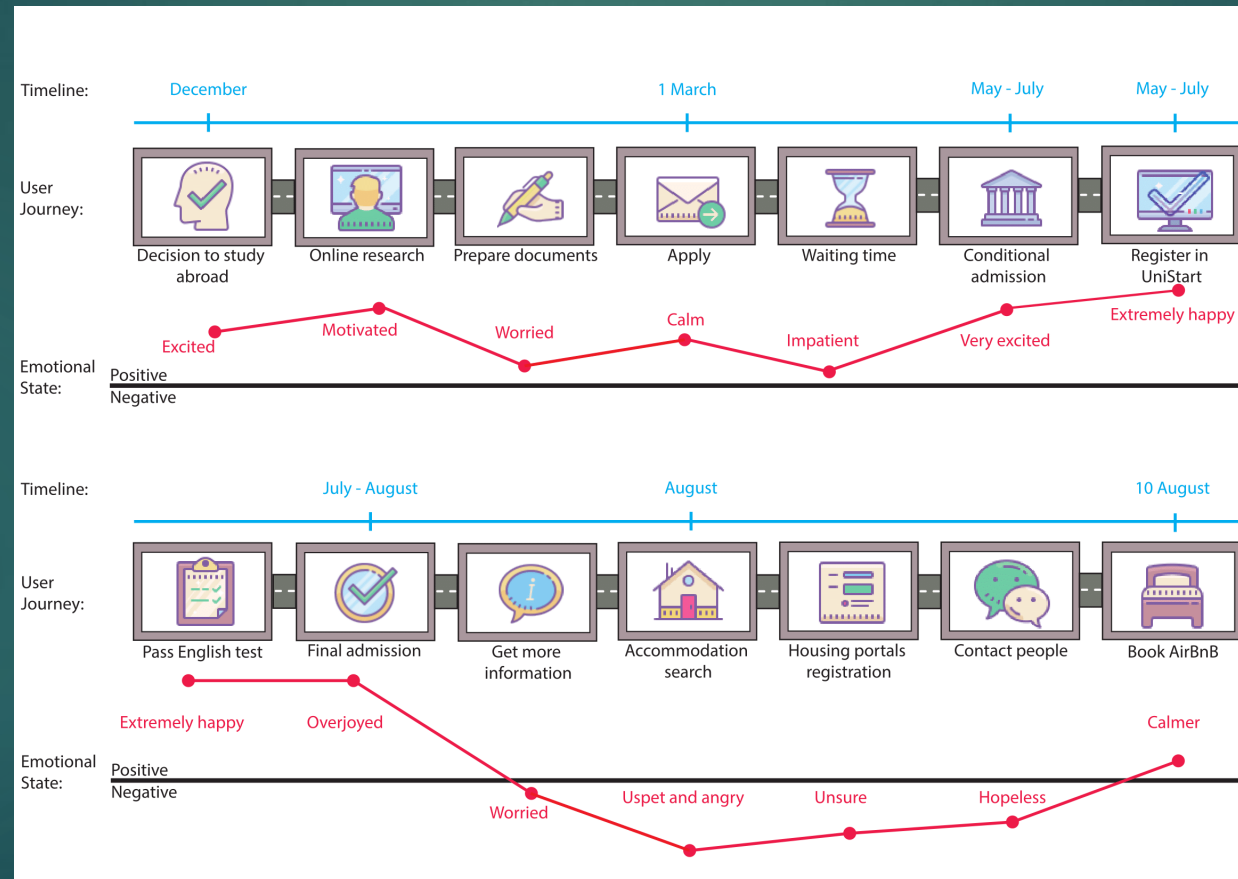
Too many students are depressed in the beginning….
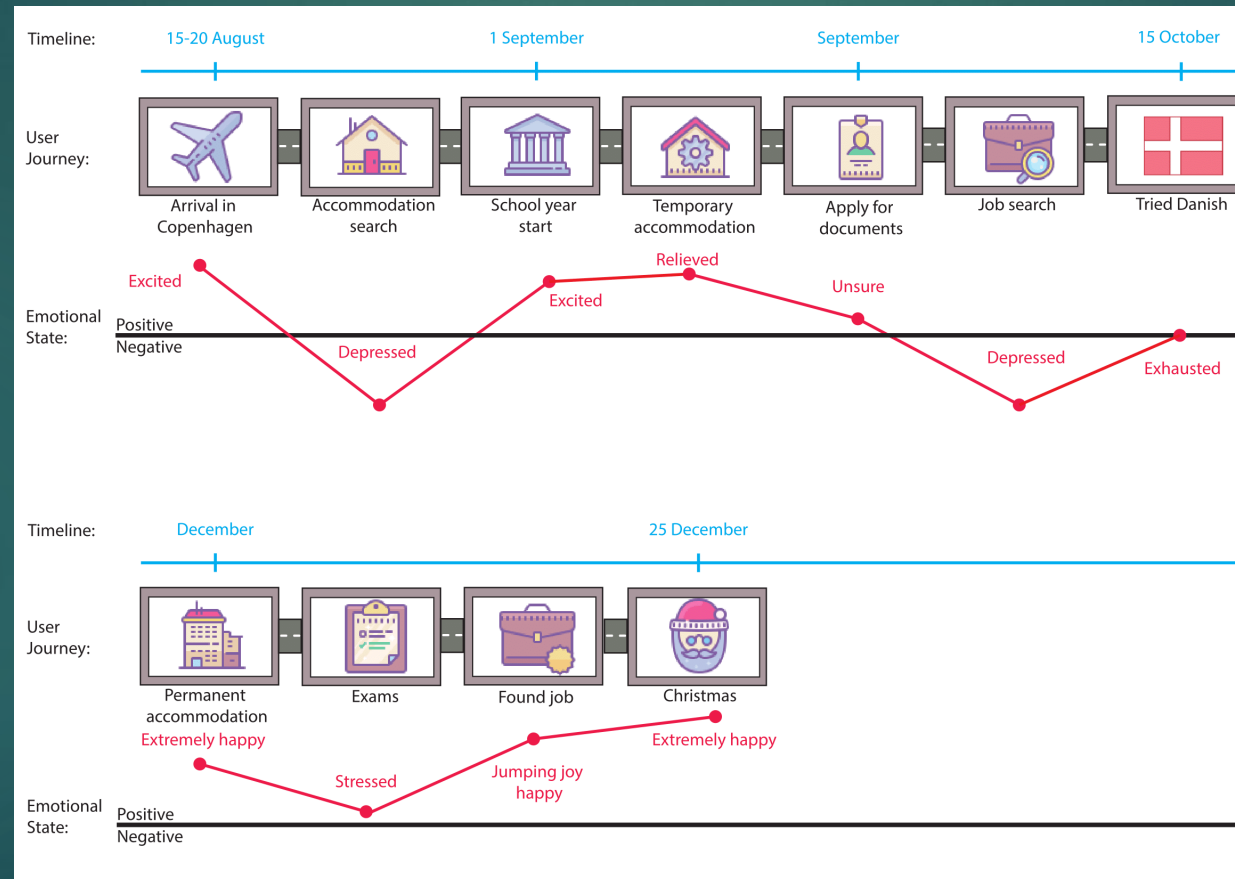
What does Aalborg University want?

What does AAU CPH want?

Choose AAU CPH
Students to choose AAU over KU, CBS, DTU, AU, etc.

Order card
Students to order their AAU Card.

Make use of the offerings
Students to use the Services created for them.

Care about and improve the university
Students to contribute to a better study environment at the university.

How can we achieve this?

How can we do all that?

Give information in a structured manner from the most credible source (AAU source).

Ensure that people read/watch the information.

Track their behavior and take action- have all data(videos) on our servers.

When students are misbehaving, NUDGE them to do what they should do:
-Design the system in such way, so they need to complete a step in order to move further.
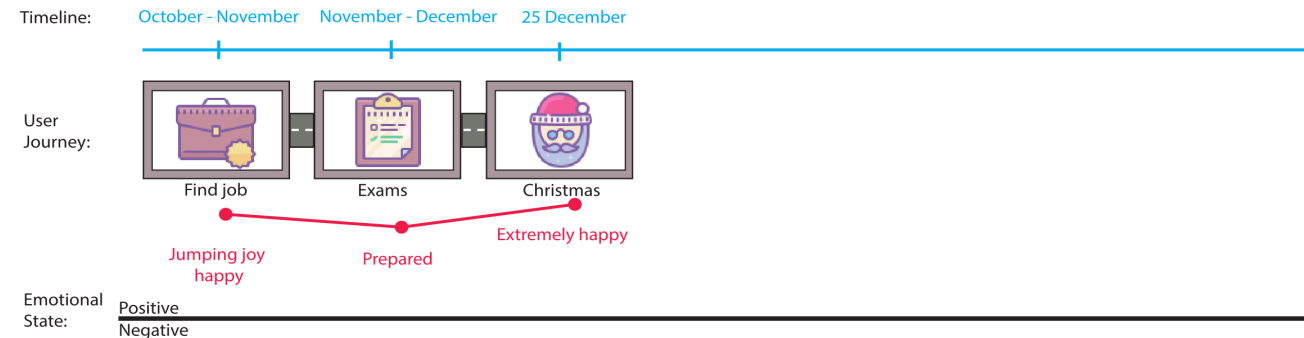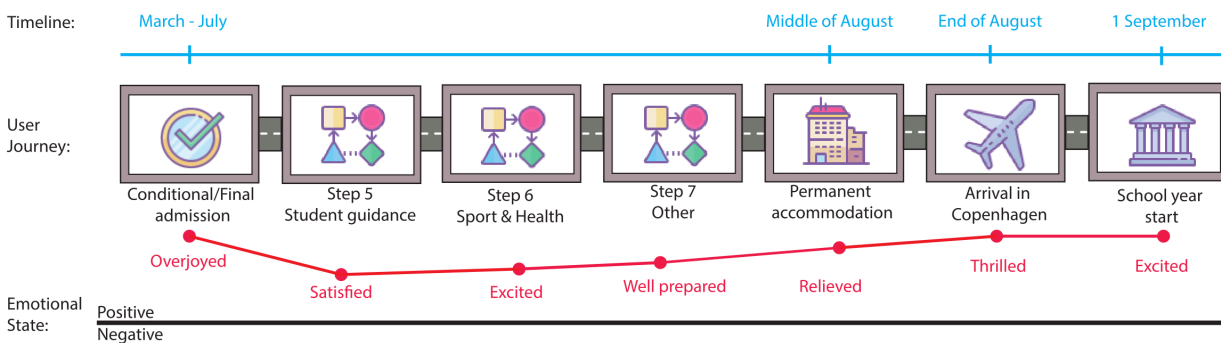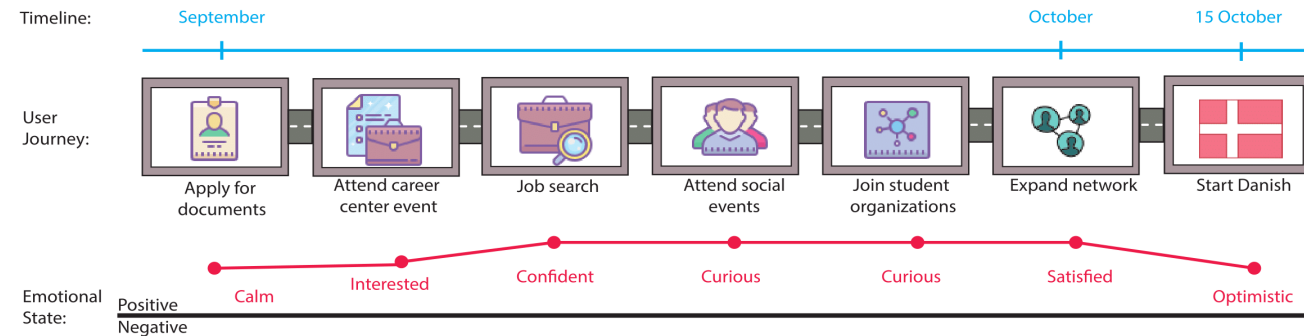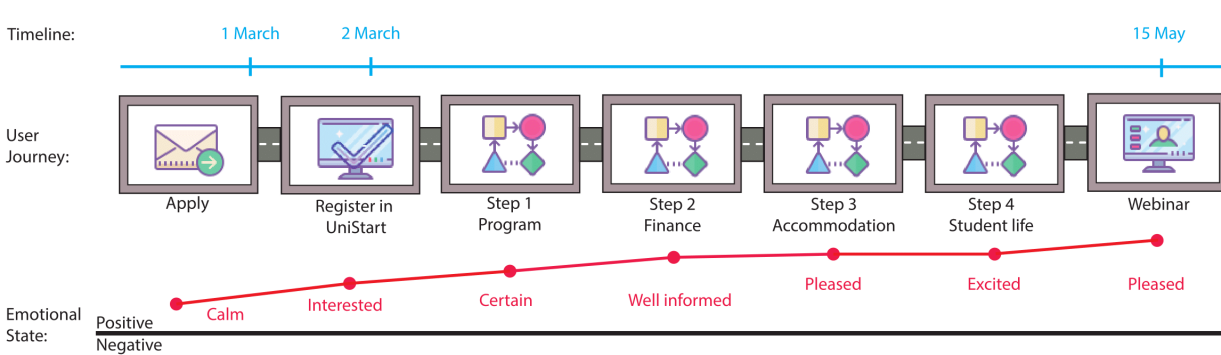-Send them automated reminder emails if the process is incomplete.

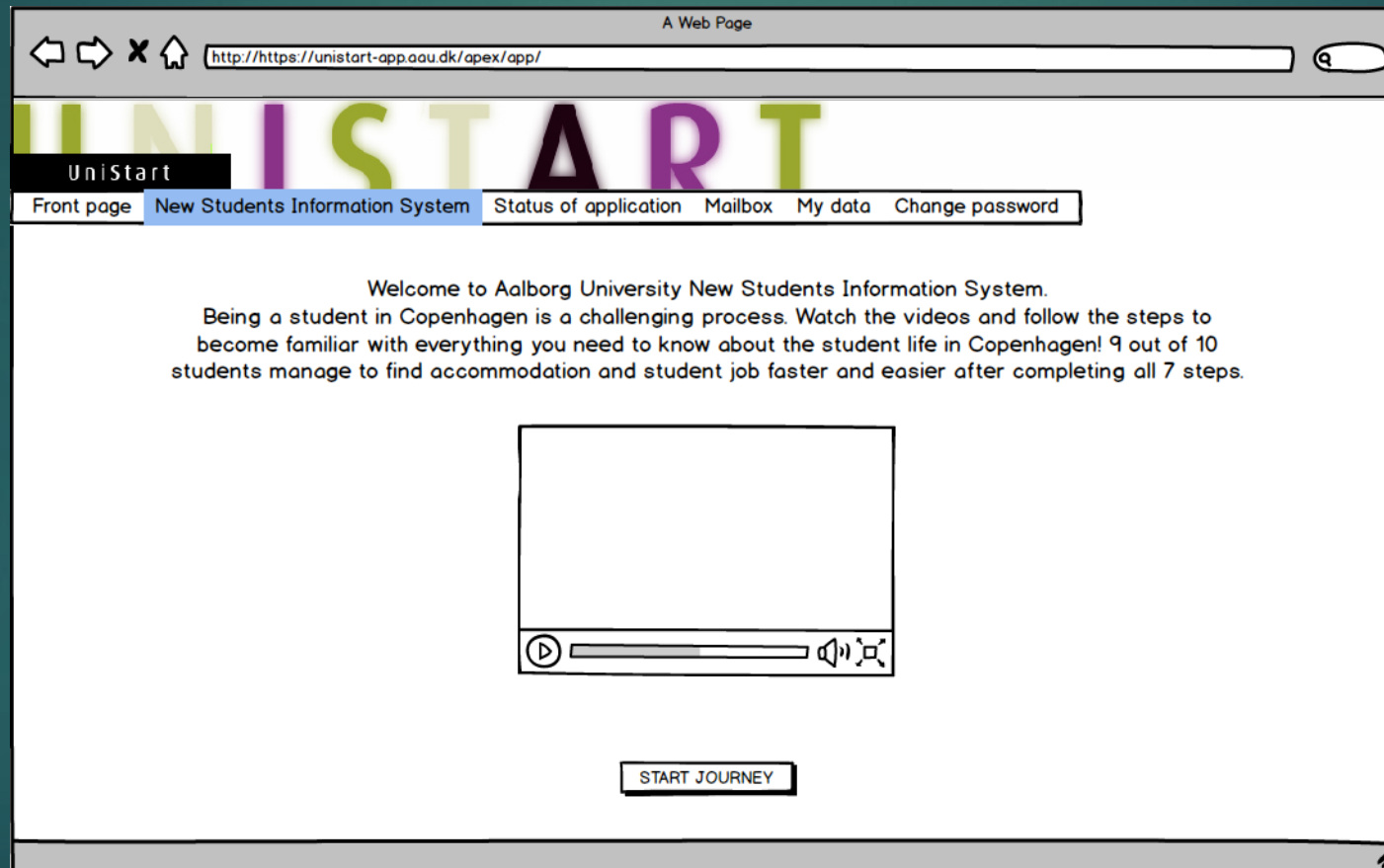Engage the audience - show the students how cool is the be a student at AAU CPH.

Receive continuoues feedback from the users to fix bugs and improve the user experience.

This is what the students want! Guidance directly from the source from start to end!

Feel free to interact with the prototype!

https://projects.invisionapp.com/share/PUJXDL6EH5Q

Do not allow yourself to fall behind! The competition does not sleep!

The universities in Denmark have already taken the chance to connect and attract students to their universities. Whether it has been webinars or Facebook Live Events, those who innovate will be victorious!

WEBINAR

FACEBOOK LIVE EVENT

It is a win-win situation and a lot of Motivation!

Gives to →	Student	Career Center	Student Guidance	Accommodation Office	Student Organizations	Sport & Health
Student	Fully prepared for what to expect. Knows where and how to look for advice.	Participants in the organized events. Feedback for improvement. Productive time.	Participants in the organized events. Feedback for improvement. Productive time.	Less homeless students. Expand network.	New members. Development opportunities.	New members. Finances. Development opportunities.
Career Center	Knowledge. Confidence. Find jobs.	Publicity			Publicity. New members.	Publicity. New members.
Student Guidance	Solve problems. Settle down faster.	Publicity	Publicity	Publicity	Publicity. New members.	Publicity. New members.
Accommodation Office	Find housing at the right time. Detailed housing video tutorials.			Publicity. Alocate time to find new private homes. Let students help themselves.	Publicity. New members.	
Student Organizations	Expand network. Have a great time. Gain information.	Publicity	Publicity	Publicity	Publicity	Publicity. New members.
Sport & Health	Join activities. Expand social life.					Publicity

What your staff said was incredible!

"I have seen enough! I think you are on to something!"

"This is strategic communication. The university needs it!"

"This system provides essential information combined with a flow and check list!"

"We have been waiting for something like this for years! We hope Aalborg University implements it!"

"We can see the potential. This system solves the problem of the new students completely."