Università
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**Faculty
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HCI Design 2016

Assignment Report
<u>Design</u>
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What To Do
1. **Develop one persona to drive/inspire your designs.**
2. **Do ideation and sketching to explore early design ideas for your project.**
3. **Create a description of the designer's mental model at a high level for your design.**
4. **Create a conceptual design as a mapping to help users acquire a mental model to match the designer's mental model.**
5. **Make sketches of features of your conceptual design in each of the three perspectives, as shown in the book.**
6. **Describe any metaphors you used in your design.**
7. **Develop a storyboard from the interaction perspective for one of your existing usage or design scenarios or write a new design scenario for this now. Include one frame to explain the state change between two adjacent frames.**

Design

This section is dedicated to the design aspects of our Teach2Learn project.

Personas

For our project we devised three personas that we think are the most representative to the type of people we interviewed in our context analysis chapter. The three personas are Andrea, Elisa, Maria.
Andrea is a young university STEM student that would like additional help to pass one of the hardest course of his bachelor and has a passion for music that would like to teach to others.
Elisa is a young worker that is seeking to grow in her company and is constantly seeking additional certificates to advance her career.
Maria is a retired teacher that would like to teach again and she's interested in the platform to continue to teach others.

Persona 1

Andrea is a young student of the University of Milan, he's 23 years old and studies Physics at the second year. He's passionate about music and in his free time he likes to play piano and he's quite a good player. He would like to impart his big passion and his knowledge to someone else. Andrea lives outside Milan and he's having a hard time to pass the Calculus exam, one of the notoriously hard exam of his faculty. He's not alone in this situation and so he is seeking a tutor but he's having difficulties to find one near him. He would like to take tutoring together with some of his university colleagues, but it's hard for him to find a way to meet all together and to find some teacher in his area of the city. Like the majority of the students of his same age, he is confident with technology and he likes to surf on internet and to discover new apps or websites to use.

- Male, 23 years old
- Student at Università degli Studi di Milano
- Studies physics (2nd year)

- Plays the piano
- Is having trouble with passing the calculus exam
- Lives outside Milan and has trouble finding a tutor nearby
- Likes technology and confident with it

Persona 2

Elisa is a young and proactive worker, she lives in Lugano and she works as an accountant at UBS. She's 30 years old and she is trying to advance her career; she's a very busy person and she's also studying after work for the bar exam as she would like to become an auditor in her company and to have more responsibilities. She is interested in confronting with other people that did the exam and also she is seeking additional help on some typical exercise questions, but she has no time to follow a course and so she's looking for an app or for something online. This exam is very important for her, because she want to get a promotion.

- female, 30 years old
- Lives in Lugano
- Employed as accountant at UBS
- Is trying to advance her career
- Wants to pass the bar exam as auditor
- Prefers to learn online as she hasn't got time

Persona 3

Maria is a recently retired teacher, she's 65 years old. In her career she tried to be the best possible teacher and her work was also her passion, therefore she feels a void left from not having to teach anymore. She's a housewife but her two sons all moved out and she still would like to spend a part of her day teaching. She has also recently developed an interest in technology and she's in need for some help learning how to use her new tablet that one of his son bought for her for Christmas.

- 65 years old
- housewife
- recently retired from teaching
- bored

Ideation and sketching

PROFILE

NAME

PHOTO

GENERAL INFO
(genre, age, location, education, occupation, etc.)

CONTACTS
(e-mail, phone number, Facebook, LinkedIn, etc.)

INTERESTS

WANT TO LEARN

CAN TEACH

RATING FOR TEACHING
★★★★★
SOME COMMENTS

CALENDAR

● AVAILABLE FOR TEACHING

TIME BANK
You have available
[ ] Hours and [ ] Minutes
To learn

MEETING SCHEDULING

YOU SEARCHED FOR:

TEACHER
USER INFO
★★★★★
GO TO PROFILE

STUDENTS
● YOU
● _____
GO TO PROFILE
● _____
GO TO PROFILE
●

CALENDAR
Select a day and time in the teacher's calendar:

● TEACHER
● YOU
● ---
● --

● AVAILABLE FOR TEACHING

WHERE
Where do you want to meet?

TOPICS
Which topics do you want to cover in the tutoring?

SUMMARY
You chose:
DAY: _____
TIME: [ ]:[ ]
LOCATION: _____
TOPICS: _____

ADD A COMMENT

SEARCHING

WHAT DO YOU WANT TO LEARN ?

SEARCH [_____ __ __]

FILTERS

[____] [____] [____] ....

ORDER BY [____]

	USER INFO	GO TO PROFILE	SELECT
	_ _ _ _ ★★★★★		
	USER INFO _ _ _ _ ★★★★★	GO TO PROFILE	SELECT
	USER INFO _ _ _ _ ★★★★★	GO TO PROFILE	SELECT

CHAT

CHAT INFO
You, teacher, other members…

Mental model

Designer's mental model

Ecological Perspective

Teach2Learn is an application that will connect people who want to learn with people who want to teach. The application consists of four major components, user profile, search, scheduling, and chat system. The user profile shows what they want to learn and can teach. The search system will allow users to search for student and teachers in the relevant subject, close vicinity, and at an appropriate time. Scheduling will allow users to match available time. The chat system will allow user to discuss and clarify any issues. The purpose of the teach2learn system is to make finding, scheduling people who want to teach and learn transparent and easy.

Interaction Perspective

Teach2learn is a phone based application. The first screen they will see is the login page or register new account page.

The profile system will show user's, profile picture, name, contact, age, sex, things they would like to learn and they can teach and their relevant teaching experience. The profile will also have rating system for their teaching ability with reviews from other users.

The search system will allow users to search for teachers or students of subjects they would like to learn or teach, respectively. It will allow the user to filter results by rating, availability, subject, and vicinity.

After selecting the target profile you will be linked the target user's calendar. This calendar is the scheduling system. In the scheduling system you will see the user's availability (i.e free blocks of time). You can select the availability the matchs your availability.

After scheduling a time, you will be directed to a chat system where you can communicate directly with person. Then you can work out the details for example, verify that time and meeting spot, and that the subject to be taught or learned, is appropriate for both users.

Emotional Perspective

The colors should be lively, bright and warm, which will try to evoke fun, curiosity, welcoming, friendly and inclusive feeling.

By using familiar interface paradigms, such as profile, search, chat and scheduling system (think Facebook and Google Calendar), the visual design should be simple and intuitive and easy for the user to pick up and understand how it works immediately. It should be unintimidating and easy. We want to make the user feel comfortable, and unintimidated, giving them more confidence to sign up for a class. We want them to build on this momentum of easiness and not pull back when they have to schedule a session.

The profile and search systems should make the user feel inspired that there are so many people who want to get better just like them, and that there are so many subjects or things that they can learn.

Metaphors

This section contains the description of the main metaphors used by our design. The two main metaphors are the timebank and the courses and classes concept borrowed by the university world.

What you put in is what you get out

Users are required to teach one hour before learning one hour. The relevant metaphor is what you put in is what you get out of the system. We want users to feel a sense of fairness and feel altruistic about giving and taking from the system. The emotional aspect is the sense of altruism. The ecological perspective sense of fairness and justness in this system and also in society.

Profile

Is similar to a social network but the information is relevant to the subject the user wants to learn and teach.

Rating

Inside the platform users are ranked by their rating. It is possible to rate a teacher or a student like a movie to indicate that that particular user was a pleasant experience or the teacher was competent.

Calendar

Users can access a calendar with the slots they decided to teach or learn. Users can book with the teacher a slot of time where both are available and they can check the availability of a teacher.

Search

It is similar to searching a product on amazon, but for teachers that fit your requirement and needs.

Courses and Classes

Despite not being a real university the platform still use the formally concept of course and classes that are familiar to students and teachers. In fact users can decide to "attend" a course and the course has a schedule and there can be an evaluation if the teacher decide so.

Conceptual design

Ecological perspective

The main infrastructure of learning is traditional school system and university. We see teach2learn as a network of individuals who want to keep educating themselves beyond the traditional borders of school or university. It augments the traditional system and is independent in itself, because we want to be inclusive of everyone of with different level of educational background. Teach2learn fills unmet needs in teaching and learning of non-traditional subjects, such as cooking or carpentry. Teach2learn also supplements traditional learning for individuals who need personalized tutoring beyond the classroom, such as falling behind in math or science.

Interaction perspective

The relevant metaphor for our application is a social network for people who want to teach and learn. This is reflected in their profiles, which is more specific to their learning and teaching interests, but it similar to Facebook popularization of a profile.

In regards to search, Amazon product search is a good metaphor for our system in searching for teachers. Our system allows the user to search for relevant subject and then allows the user to filter by rating of the teaching, location, and availability.

For scheduling, a familiar system is any calendar system that allows the user to see availability of other teachers and students. A good mental model would be equivalent to Google Calendars our Microsoft Outlook Calendar, because we are trying to match the availability of teacher and students in a transparent and intuitive way.

Emotional perspective

Our perspective is that everyone should continue to learn and grow in their life, but also be willing to teach and try to help others learn even if they are not a professional teacher. We want to build a community that is inclusive and welcoming of every person's level.

The profile should reflect this educational journey that you are taking to improve yourself. This will be shown from all the lessons, reviews and interactions that you have had in the application.

From our sketches, you can see that we want a system that is simple, easy to understand, transparent and that is clean and organized. The colors patterns help with organization and simplicity. The blue, red, green, white and yellow give a feeling of being back in school a sense of innocence and most of all fun. The star rating are bright yellow and are proud achievements, similar to receiving stickers in elementary school for exemplary performance.

Storyboard

Scenario 1

Andrea is a student who is facing difficulties in his Calculus class. Discussing it with his friends he realizes that he would require to get some kind of extra tutoring for the subject. From here the scenario can end up in two different ways:

a. He can ask few people to help him with the subject who may or may not have the time and the inclination to teach him. This would force him to do self-studies, which may result in a bad grade

b. He can use the Teach2Learn app and fix a few teaching sessions with an expert and complete the syllabus in time. This would really help him in getting good grades

[*You can see this scenario in the Storyboard below, there are two more scenarios that we would like to share without a Storyboard*]

Scenario 2

Elisha was out on a vacation, which resulted in her missing couple of classes. As this was her personal decision, she felt too shy to ask the Professor/TA to teach her the missed lessons in their spare time. She decides to use Teach2Learn, where she could easily ask for help, without any inhibitions.

Scenario 3

Neha is one of the few people who speak English in her local community. She is aware of the fact that people in her locality really want to learn English. But she needs a better way to communicate that she is willing to teach the language and is available at a certain time. She uses Teach2Learn to find prospective students and organize her classes.

Storyboard