

## “TalkToMe”

*-An interactive shoe*

### Project definition

Designing and making a shoe which reflects profile of wearer

### Objectives & goals

- It will provide people to express their selves in a different way

Introducing our selves via wearable technologies will help us to see our and others personality in a physical way. We always talk about our personality, our hobbies, likes and dislikes and most of people like to talk about themselves. So, this interactive shoe will talk about personality before she/he does.

- More understandable and healthy relationships.

If we had a chance to develop mutual language by using a wearable, this will create a new way of understanding the people that acquaintance or we are not familiar, and helps us continue to develop our friendship or relationship by this seeing an information that belongs to language of that product. Also, other people will see how we introduce ourselves to environment and acts will be change accordingly.

- Representation of Identity

The idea of how identity occurs in a social context, interaction of self with others is a known topic that shows up in various concepts. Representation of self to others was always an important issue. Identity representation became more important with Social Network Sites provide new spaces and ways. The representation of identity became visualized and my project aims same approach by creating a mutual language.

- Developing mutual relationships

Besides creating mutual language helps to create more understandable and healthy mutual relationships. For example, we can see if someone is into topic we want to talk about that we are also in it gives us a chance to connect with him/her easily. Also changing topic in conversation, knowing what someone pisses about, his/her likes or dislikes gives us a clue what to do next. Interaction between two or more people will have much healthier with observable clues. These clues will give a chance people to change their behaviors and reactions suitably. People will give information about their selves and learn of others by non-verbal communication.

- Connecting with the product

Researches indicate that people expect more and more in human products. People express themselves, their emotions like shouting at the monitor, shoving the chair away. In some way we are always in connection with products. Also, we buy products according to our interest; we want them to show our personality in some way. For example color and style of clothes, cars, design of home, they all give us a clue about personality.

### **Target audience/user**

The target of “TalkToMe” is women and men. Especially between 18-40 year old. The reason why I choose those ages is the shoes flashy appearance. There will be no distinction in sexual preference. They can be gay or straight because one of the specialties and going to show this concept but other determining differentiations steps in. Firstly, the economic status of wearer is important for every age of buyers. People whose income are normal and above the normal, more likely to acquire that kind of shoe, even many people who have a normal status of life can be found it unnecessary to have something like this and could not obtain. In this situation other determining factor makes it more clear which we can call personal style of life-mode of life and likes and dislikes. This mode of life can be understood by knowing what kind of job that he/she works, how they wear; classic or different style, if she is opened to changes or not. General profile of the consumers can be define as social people who like interacting with new people and like to get to know them better. They also like to share information about themselves to others. Other group can be defined as people who are lack of self confident but want to share special information.

### **Background information**

After my internship decided to be a shoe designer and this is the reason of why I want to design shoe which has a different purpose then others. After my research I find out that wearable can turn in a multimedia display according to interest of producer like changing patterns, changing composition and becoming in an expressive form. There were many ways to transfer it to multimedia object. Firstly expressing emotions through wearable took my attention and searched it.

In my research, I find that mood started to play important role in designs then before. Innovative designs get a head by detecting emotions more precisely by detecting other values in body and applied it to better products. Such as Philips designs in clothes, necklaces and furniture. After so many researches, we argued and decided that people may not want to show their real emotions to others. The ways they want to express them and how they behave to others shapes and develops his/her personality.

Communicating and representation of identity always played a big role in societies. For instance some groups in society created their own language to identify other people and communicate them easily. Hobos living in America can be an example of how a mutual language can help binding the people and survival.

**Hobos-** ‘Hobos’ are workers who wander.

Tramps and hobos are commonly lumped together, but in their own sight they are sharply differentiated. A hobo or bo is simply a migratory laborer; he may take some longish holidays, but soon or late he returns to work. A tramp never works if it can be avoided; he simply travels. Lower than either is the bum, who neither works nor travels, save when impelled to motion by the police








The population of hobos increased greatly during the Great Depression era of the 1930s. With no work and no prospects at home, many decided to travel for free via freight trains and try their luck elsewhere.

Life as a hobo was a dangerous one. In addition to the problems of being itinerant, poor, far from home and support, and the hostile attitude of many train crews, the railroads employed their own security staff, often nicknamed *bulls*, which had a reputation for being rough with trespassers

Many hobo terms have become part of common language, such as "Big House", "glad rags", "main drag", and others

To cope with the difficulty of hobo life, hobos developed a system of symbols, or a code. Hobos would write this code with chalk or coal to provide directions, information, and warnings to other hobos. Some signs included "turn right here", "beware of hostile railroad police", "dangerous dog", "food available here", and so on.

**Hobo signs** - Beginning in the 1880's up until World War Two, hoboes placed markings on fences, posts, sidewalks, buildings, trestles, bridge abutments, and railroad line side equipment to aid them and others of their kind in finding help or steering them clear of trouble. Usually, these signs would be written in chalk or coal letting others to know what they could expect in the area of the symbol. The classic American hobo of the late 19th and early 20th centuries communicated through a basic system of markings, a code though which they gave information and warnings to their fellow Knights of the Road. Today hoboes communicate with cellular phones, and e-mail.

	7. House is well-guarded
	8. This is not a safe place
	9. Good food available here, but you have to work for it
	10. If you are sick, they'll care for you here
	11. This community is indifferent to a hobo's presence
	12. Authorities are alert: Be careful
	13. Officer of the law lives here

So I decided to make a shoe that creates a common language between users with understandable clues by using colors that reflects personality profile of wearer. Like Hobo signs, understandable in a certain group for surviving better. The concept of idea occurs in social context is well known. In recent years this concept transformed and become visually presented issue. Facebook,

Myspace, Friendster are the examples of it. The concept is about the act of sharing yourself or your constructed identity basically. I will briefly explain the information revelation in online social networks to make my point clear.

## **Facebook**

“Information Revelation and Privacy in Online Social Networks”  
Ralph Gross and Alessandro Acquisti.

### *Information Revelation and Online Social Networking*

Individuals see the profile as a representation of their selves with the intention of contacting and being contacted by others, to meet new friends or dates, finding new jobs. Representations are category based, such includes literately or entertainment interest, such include political and sexual ones. These categories can stretch towards different directions in different types of sites.

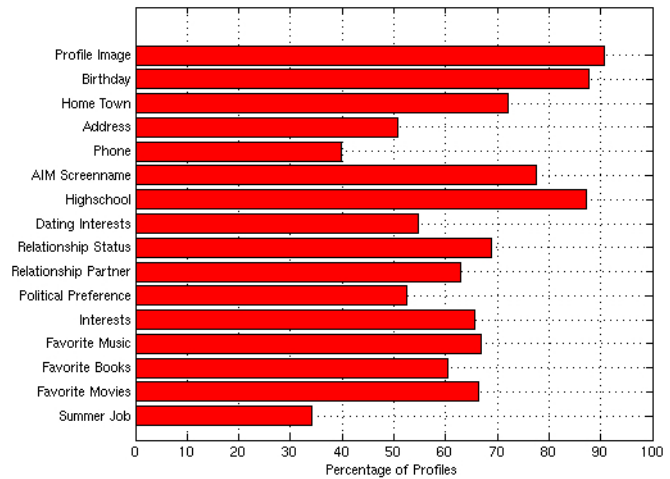
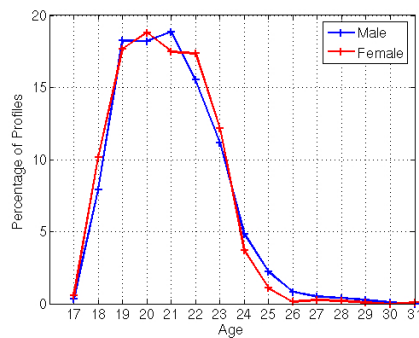
First, identifiably changes according to type of site. Facebook aims to connect participants' profiles to their identity unlike dating sites. However most of sites encourage using personal identifiable photos which in my case it will be face to face. Second, the information revealed about hobbies and interest can go to different directions. Like private information about drinking, drugs, sexual preferences and orientation ( in Nerve Personals) and open-ended entries (in LiveJournal)

### *Types and Amount of Information Disclosed*

In CMU;  
90.8% contain an image  
87.8% reveal their birthday  
Majority of users;  
Disclose their dating preferences (male & female),  
Current relationship status (single, married, in a relationship...)  
Political views (from very liberal to very conservative)  
Various interests (music, books, movie)  
A large percentage of users 62.9% who list relationship status other than single even identify their partner by name.

Also, both male and female users share same amount of information in most categories.

Age distribution of Facebook profiles at CMU has the majority of users between 18-24 age brackets.



[www.mendeley.com/research/information-revelation-and-privacy-in-online-social-networks-the-facebook-case-1/](http://www.mendeley.com/research/information-revelation-and-privacy-in-online-social-networks-the-facebook-case-1/)

## My Research about Information revelation by age at Facebook

### 17-20

Most people at that age fill their education (with school names), their location, languages and other information like sport, movie, tv, activity, entertainment, games. Boys profiles are more detailed in contrast to girls. For both boys and girls who completed one info about art, music or anything else more likely to complete other information. For the one who shares less or no secondary information about their selves completes basic information like sex, interested in.. The reason is at that age identity starts to take shape, interacting with friends and showing their selves and their social activities is more important. They feel more like their profile represents exactly their identity or their ideal identity. The self-exposure is more.

### 20-25

Information in profiles decreases like there are 3 movies instead of 10 like younger people do. Or less concepts they fill. It shows more of a shaped identity. They started to know what they like exactly, what kind of music they like means different kinds of music like pop and hard rock is not written together. The profiles seem more deliberate. Basic information is again mostly full (age, relationship status, interested in, sex, education,work) The other 2 concepts appear in profiles; Political view and Religion view but it changes according to personality also they could be use as a ridicules stuff. Employers and interns start to play big role.

### 25-30

Starting with that age women are more inclined to hide their relationship status if they are not married. The other information on basic info is mostly completed. Women also start to eliminate information like hobbies and entertainment and activities. Profile of men is mostly more completed then women profile. Men are more confident in sharing information like e-mail addresses, mobile phones, hobbies etc.

These are the information that I can use in my project. It shows what people want to share most. In other words, my project will be based on profiles in Social Network Sites and aiming to create an own language by using colors that Hobo's done with signs. My aim in my project is to create a shoe which creates its own appearance with given information by user's profile.

I have also searched many industrial objects designed by using led. Philips's led lamps can change color by using the touch-sensitive color wheel and can match to anyone's mood, also it makes change in appearance of walls by reflecting. The other project that I have found is the emotion detector which was designed by Affectiva's doctors to observe autistic children's emotional change which is known as Q sensor. Q sensor detects and record physiological signs of stress and excitement by measuring slight electrical changes in the skin. They are all involving users in design in some way. Q sensor projects aims same goal in some way with my project, helping and giving a chance to people express themselves.

<http://www.lighting.philips.com/main/lightcommunity/trends/led/>

As I mentioned Q sensor project, I need to explain it detailed to understanding the approach of my project. Q Sensor designed for "detect and record physiological signs of stress and excitement by measuring slight electrical changes in the skin." in autistic children firstly. They needed to learn about how they feel, what they like, what annoys them etc. to communicate them better. Their information transfers to computer. This aim of Q sensor designed by Affectvas doctors makes my point clear. I want to show what we like, what not by using an wearable but the difference is information of people will transfer to wearable from a user interface which user will fill.

<http://www.affectiva.com/q-sensor/>

Also, the other works which leds used in shoes;

Here is Chanel's led shoes they used in parade. It has no purpose then visuality. Second one is Rodarte's led shoes also designed for visual.

<http://www.footlux.com/2011/07/chanel-led-shoes-light-collection-at-haute-couture-fall-2011-collection/chanel-led-shoes-light-01/>

<http://allthatshoes.tumblr.com/post/1335001052/rodarte-led-heels>

Here are shoes that used in step up 3, they have motion sensor that activates led.

<http://www.waldemeyer.com/step-up-3d-led-shoes>

In other words, the combination of two technology, computation and materials creates new form of expressing and people always try to enrich the communication in some way. For example this technology can be used in other areas like using it on people who are lack of self-confidence or people who can't speak or express their self properly like autistic and understanding their needing better.

By doing this project I will both improve my skills in shoe design and interactive technology. I will show how persons profile plays a vital role in product appraisal and appearance. Personal usage with interface becomes an important part, objective of interaction design that used in

wearable. Furthermore this project will help people to connect each other much more. This project will be giving a chance wearer to redesign the design.

### Detailed project description

I will be designing an interface that contains questions about personal info to give a color according to them. Information will transmit into led as a change of color. Each color will represent a sign about wearer. It will have a mutual language that would be read by other users. I am thinking about embedding led into transparent heels and it will have a specific color- black that will accommodate with each led color.

Here are my shoe sketches; I am thinking about using layers in heel for information.



### Concepts:

Age -?

Interested in ; Girl-pink, Boy-blue,

Relationship Status; Single, in a relationship, married, open relationship

Employee/student/unemployed

Daily Mood (like status): Excited, cheerful&joyful, calm&peaceful, dejected&unhappy, disturbed&upset

Hobbies and Interests: Music, art, literature, sports

Political view:

## Religion

Each layer will represent different information about user. For instance; relationship status; also contains gay or straight, daily mood, and kind of music he/she likes, professional group. They will be appearing after I make a questionnaire for what people want to see about other people.

This interactive shoe can also allow wearers to refresh the appearance in parallel to changeable interests. Our interest, likes, dislikes can change and we can apply it to the product at anytime if we don't like the way we represent our selves before we can update it like in Facebook.

### \*User centered design

-working with target users to learn what to add, show what, what they don't want to see, I will be getting feedback.

-interface design and design of the shoe should be easily recognizable and understandable.

-Mutual language should be easily understood. Specific colors and information will be added to eliminate complexity.

## **The Degree Which Colors (Hues) Are Associated with Mood-Tones, Louis B. Wexner**

Purpose: To determine which colors (hues) are associated with mood-tones. Showing the positive relation between certain colors and mood-tones.

Procedure: Groups of mood-tones follows: exciting, stimulating; secure, comfortable; distressed, disturbed, upset; tender, soothing; protective, defending; despondent, dejected, unhappy, melancholy; calm, peaceful, serene; dignified, stately; cheerful, jovial, joyful; defiant, contrary, hostile and powerful, strong, masterful.

The subjects consisted of 94 students in General Psychology of 48 female and 46 male.

It is thought that certain colors tend to "go with" various color mood-tones, this is attempt to determine to what extent this may be true.

They are wanted to select one color on the charts that they feel the best represent the feeling described by the word groups. They are told that their first impression is may be true.

Eight colors, yellow, orange, red, purple, brown, blue, black and green.

Cultural factor, biological and learning factors are the factors which can influence people.



Results;

***Exciting, stimulin***

<i>Color</i>	<i>Frequency</i>
Red	61
Yellow	12
Orange	11
Green	4
Purple	4
Black	2
Blue	2
Brown	0

***Secure, Comfortable***

<i>Color</i>	<i>Frequency</i>
Blue	41
Brown	23
Green	18
Yellow	8
Orange	2
Black	2
Red	0
Purple	0

***Distressed, disturbed, upset***

<i>Color</i>	<i>Frequency</i>
Orange	41
Black	24
Purple	11
Brown	9
Green	8
Red	7
Yellow	5
Blue	5

***Tender, soothing***

<i>Color</i>	<i>Frequency</i>
Blue	41
Green	24
Yellow	11
Purple	9
Brown	6
Orange	2
Black	1
Red	0

***Protective, defending***

<i>Color</i>	<i>Frequency</i>
Red	21
Brown	17
Blue	15
Black	15
Purple	14
Green	5
Orange	4
Yellow	3

***dejected, unhappy***

<i>Color</i>	<i>Frequency</i>
Black	25
Brown	25
Purple	11
Blue	11
Green	9
Yellow	5
Orange	4
Red	0

***Calm, Peaceful, serene***

<i>Color</i>	<i>Frequency</i>
Blue	38
Green	31
Yellow	8
Purple	7
Orange	4
Brown	3
Black	3
Red	0

***Dignified, stalety***

<i>Color</i>	<i>Frequency</i>
Purple	45
Black	30
Blue	9
Brown	6
Red	3
Orange	1
Yellow	0
Green	0

***Cheerful, joyful***

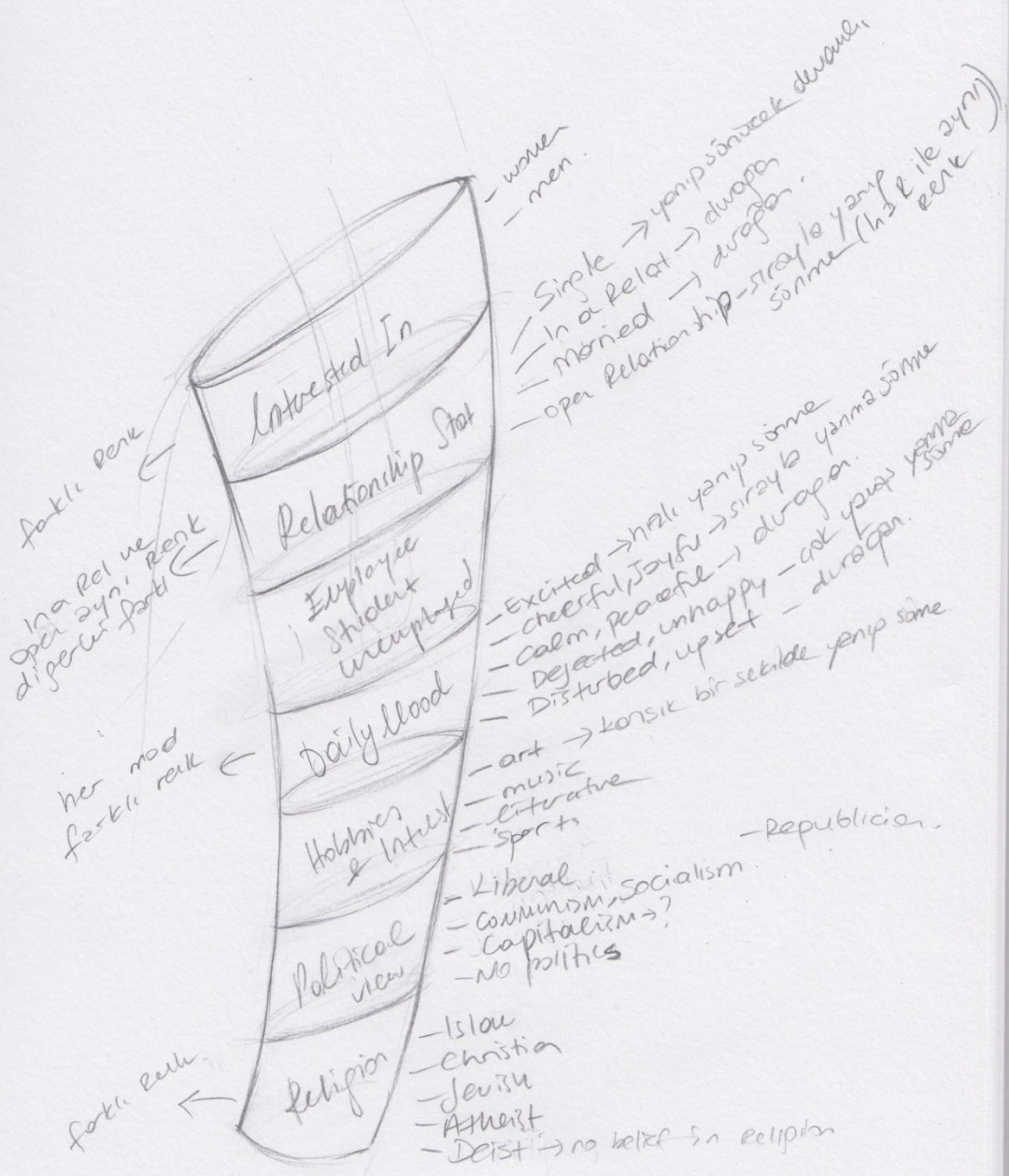
<i>Color</i>	<i>Frequency</i>
Yellow	40
Red	20
Orange	14
Green	11
Blue	7
Purple	2
Brown	0
Black	0

***Defiant, contrary, hostile***

<i>Color</i>	<i>Frequency</i>
Red	23
Orange	21
Black	18
Brown	11
Purple	9
Yellow	5
Green	5
Blue	2

***Powerful, strog, masterful***

<i>Color</i>	<i>Frequency</i>
Black	48
Red	23
Purple	8
Blue	6
Brown	4
Orange	3
Yellow	1
Green	1



faktik beruk  
 In a Rel we peng di geruk fard

her mod faktik reik

faktik reik

Interested In  
 Relationship Stat  
 Employee Student unemployed  
 Daily Mood  
 Hobbies & Interest  
 Political view  
 Religion

- woman
- men
- Single → yonip somek de wauk
- In a Relat → di wapon
- Married → di wapon
- open Relationship → siyaple yonip some (had ik syrn)
- Excited → shaki yonip some
- cheerful, Joyfu → siyaple yonip some
- Calm, Peaceful → di wapon
- Dejected, unhappy → ak yonip some
- Disturbed, upset → di wapon
- art → konsik bir sekide yonip some
- music
- literature
- sports
- Liberal
- Communism, Socialism
- Capitalism?
- no politics
- Republican
- Islam
- Christian
- Jewish
- Atheist
- Deist → no belief in religion

## **Required know-how and resources**

### *Needed know-how and abilities*

\*Color and psychology

Which color should be chosen to the result of given information. For instance green represents peace, yellow anger etc.

\*Type of interface

Making a system easy to use for intended users. It should be understandable and basic

\*Making an interface

Contains personal information and questions

\*Using Arduino

Connecting led with interface

### *Needed resources*

A place where can supply shoe materials, I have an experience about making a shoe but I need to find a manufacturer which can make me transparent heels. Also I need a help with coding part and interface.

## **Difficulties & risks**

Embedding materials into heels should be done skillfully, if the appearance looks bad from outside that would give negative sense. Interface should work properly; Led should change color correctly parallel with given info.

## **Phases of the project**

-Research about wearable technology

-Research about usage of personal information to create personal sites, etc

-Research about what people want to see on other people, the necessary and unnecessary ones.

-Combining color with information: ex: red color represents anger, blue represents tranquility

-Creating interface

-coding with Arduino

-shoe designing

-putting leds into shoe

-Experiment the correction of color changing parallel to changeable info.

### Criteria of success

If color and style changing of led collinear truly with profile changing, means that the project becomes success

### GanttChart

	December				January				February				March				April				May				June			
	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Research about wearable tech	█																											
Research about mutual language			█																									
Research usage of personal inf in SNS			█																									
Research of color association, effects			█																									
Design of the shoe&leds				█																								
Presenting mutual language of shoe in a visual way, photographs- prototype					█																							
Interface design											█																	
Arduino and coding												█																
Making shoe								█							█													
Putting led into heels																	█											
Connecting leds with arduino and interface																		█										
Testing and making corrections																					█							
Presentation																							█					

