



Human Computer Interaction CS-3-1401333-Spring2018 Assignment#3

Introduction:

The design of applications must take into account many aspects. In this paper, we will talk about some important and influential aspects that must be taken into account in the design of these aspects: icons, typography, and Conceptual design. We will explain the topic and then explain how we will apply it in our project of the HCI.

Content:

Icons:

Since icons help users to understand functions of a program easily, we decided that in paragraph one we will talk about the taxonomies of icons.

Researchers have developed several icon taxonomy systems that organize icons based on their graphic elements. There are two types of icons:

1. **Data icons** represent objects that could be used in actions (e.g. folders, files)
2. **Function icons** represent objects that could perform actions (e.g. paint brush).

Icons can be described according to the representational technique in the following categories:

- **metaphoric** (e.g. road sign for falling rocks)
- **paradigm of use** (e.g. fork and knife for restaurant)
- **symbolic** (e.g. broken glass stands for fragile objects)
- **abstract representation** that should be memorized by the user (e.g. the symbol for electricity or radioactive places)^[1].

Based on that, we will concern to make an icon for our program (icon used in action) beside perform actions icons, so when we design it, we will make sure the icons to be simple and the meaning matches users' object (or action). In other hand, if the icon was not simple we will make sure that to map image with text when we create an icon.

Typography:

"Typography is the detail and the presentation of a story. It represents the voice of an atmosphere, or historical setting of some kind. It can do a lot of things." **Cyrus Highsmith**

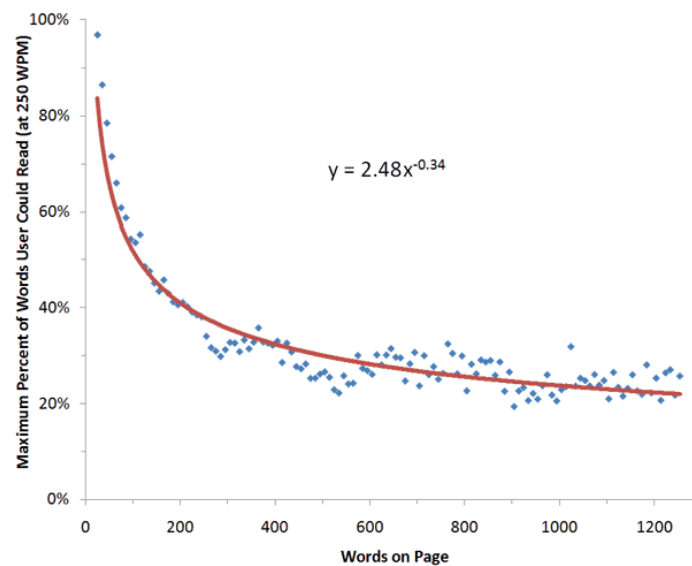
Typography is the art of arranging the letters and making them easy to read and attractive that includes the type and font size.

Font type is important and affects the visual perception of text accuracy, response times, and how legible the text. Therefore, the researchers recommend not to use different fonts because it reduces the clarity of the text. It is better to use the bold font or tilted to



distinguish the headings and sub title ^[2] based on that we will select similar fonts and to clarify the headings using bold style.

Back in 2008, researcher Harald Weinreich & Jakob Nielson published a study that measured 45,237 page views from 25 different users, and found that – of the people being analyzed – most people would scroll about halfway down the page for longer content and only spent enough time on the page to read less than 20% of the text. ^[3]



So in our app design just we focus on The lowest possible number of words gives the greatest benefit possible.

Conceptual design:

is often overlooked and underestimated by information designers who tend to be more focused on implementation and concerned with aesthetic qualities. Consequently, there is a lack of thorough thinking and understanding during the conceptual part of the design process that results in a recurrent development of unintelligible diagrams in information design practice. Bringing awareness to conceptual design can help designers realize its function and importance for the development of effective diagrams

The resulting information design model is a two-stage process :

1. **Conceptual design**, Actions that translate content (extract meaning) into understandable information for designers.
2. **Prototype design**, Actions to execute the ideas conceived during the conceptual stage and convert them into visual language for communication.

Both stages are not linear; they can overlap or go back to previous states if emerging content requires further actions. For example, the design process begins again when the quality of the solution needs improvement. In such a case, the process could start either

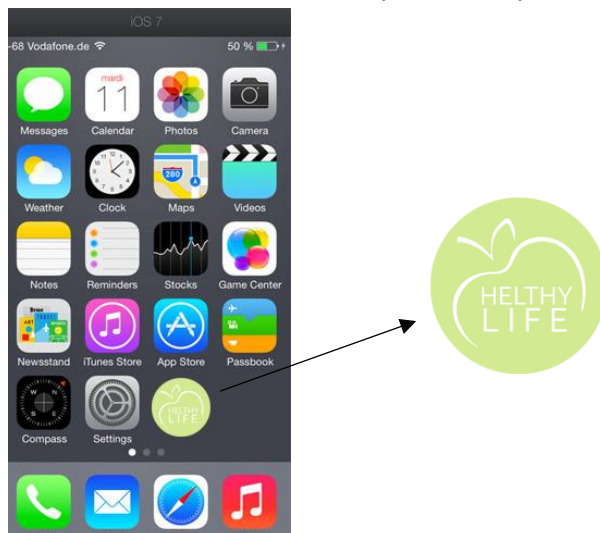


with conceptual tasks (e.g., supplemental research and analysis are needed), with prototype tasks (e.g., aesthetic aspects need revision), or with a mix of both.

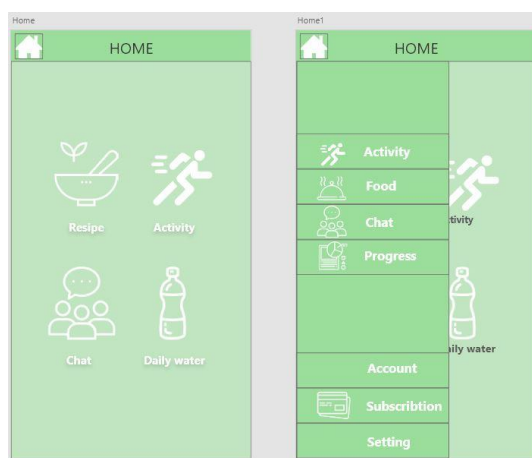
Conclusion:

The icons are very helpful and attractive to understand program functions, so we decided to make icon for the app (icon used in action) to found the app easily when user want to use it.

This the icon we create it is simple and easy to remember .

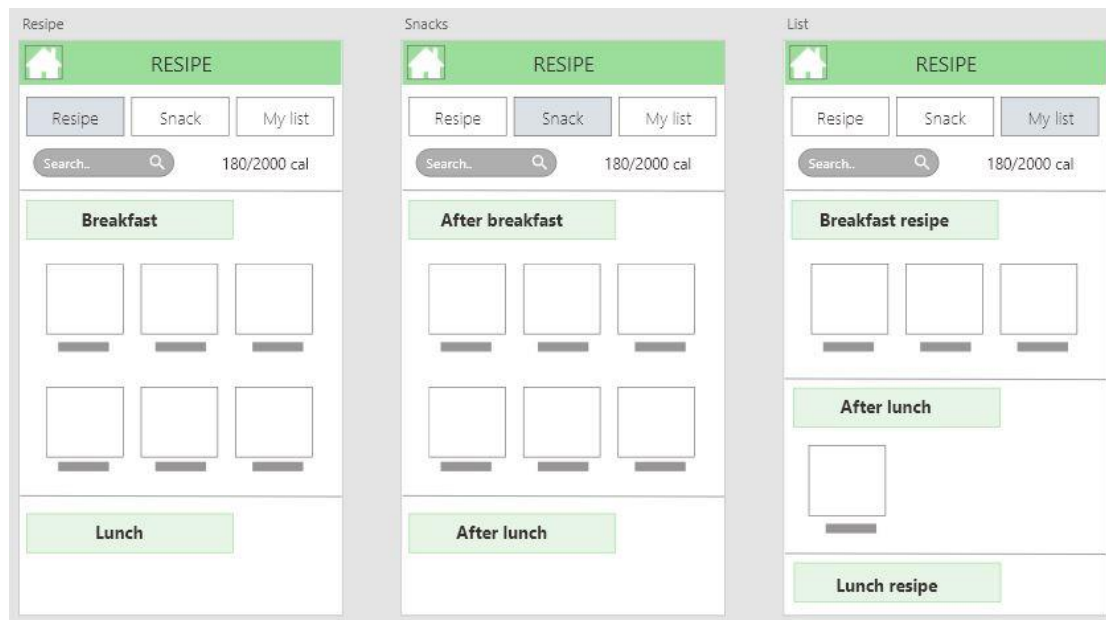


Choosing the meaningful icons represent function :





and decided to choose a general font to application and highlight some sentences that we need to be more clearly using the bold style of the same font.



The user is

Reference:

[1]- "Icons in mobile phones Comprehensibility differences between older and younger users". Charalambos Koutsourelakis & Konstantinos Chorianopoulos. 2010

[2]- "Investigating typographic differentiation" Mary Dyson & Sofie Beier"

[3]- <https://conversionxl.com/blog/the-effects-of-typography-on-user-experience-conversions/>

[4]- A guided approach to conceptual design in the information design process © 2014 John Benjamins Publishing Company.