

Design of effective health related mobile application & Impact of interactive systems on users

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Abstract

With the influence of advanced technology, our society adopted the convenient life style. As a result, the obesity and various health related problems became the serious issues around the world. On the other hand, many IT products and smart phone applications are developed to solve these issues. Our research is to help finding what features of the interface can provide a better fitness condition and encourage the people to use them. Our team chose three smart phone applications to meet with our research topic. With final outcome of the research, we will figure out the best effective design of an application that will fit the users' wants. Also, our research will find out these features would attract users to become more active by choice.

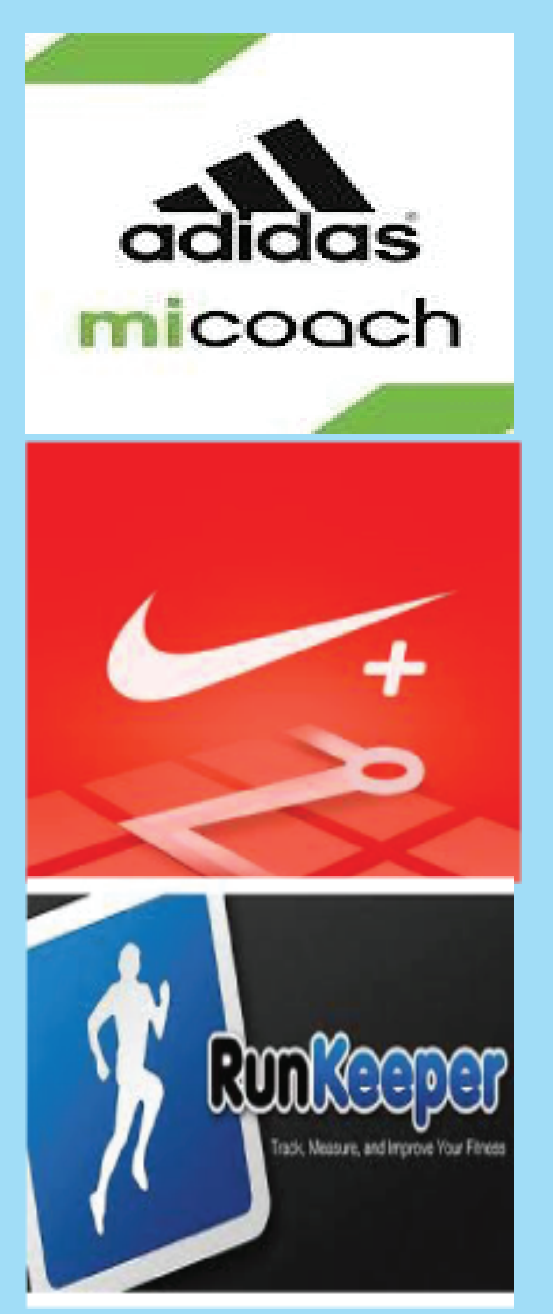
Research Question

What kind of information or interfaces users want to have in order to have a better understanding of fitness mobile application and experience a better fitness level?

Research Methods

3 Target applications

- Micoach
- Runkeeper
- Nike Plus



Primary Research

- Self-evaluation
- User Testing
 - 6 Users Participated all three application.
 - They tested these application which intherfaces they like or dislike
 - They used each application a week. Our target users were IU students; active and non-active
- Interviews

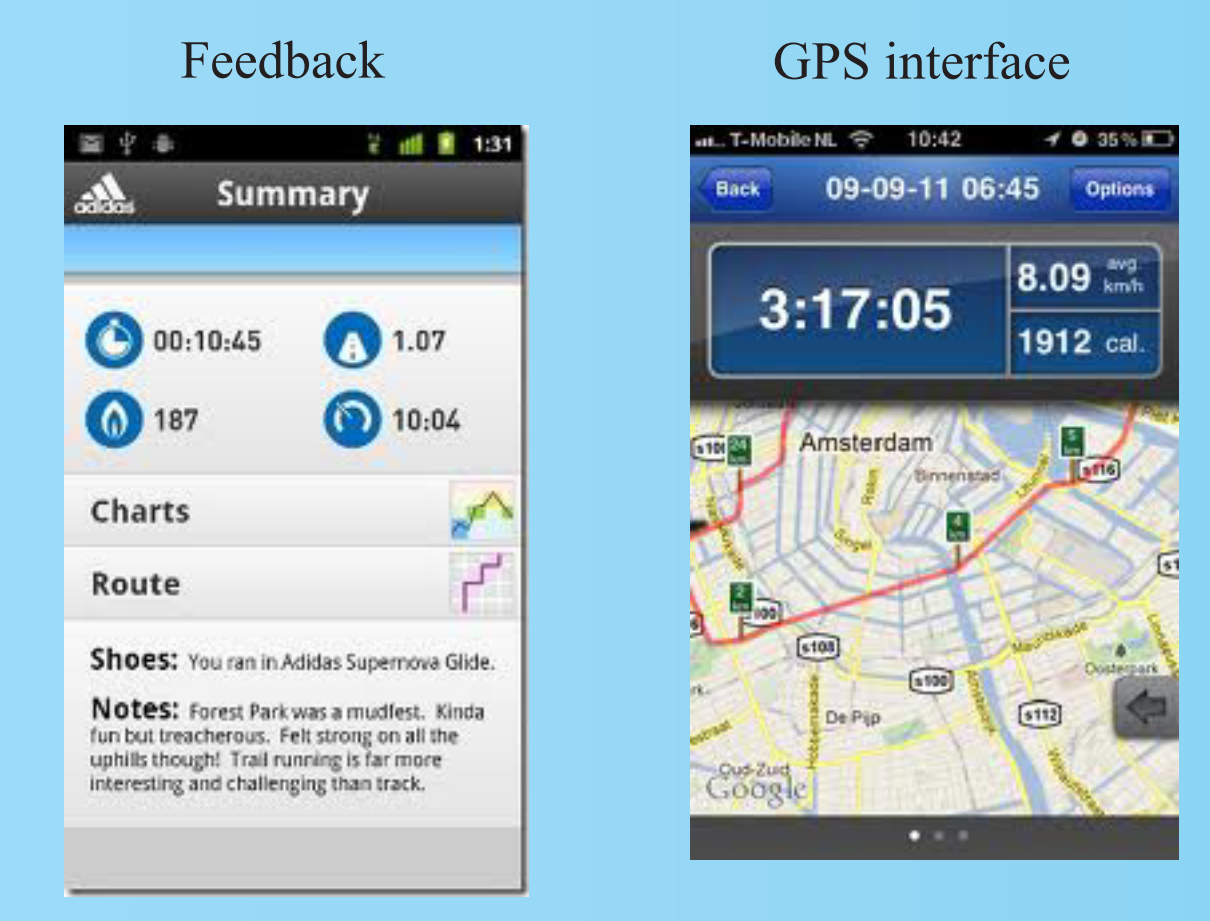
Research References:

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2. <http://techcrunch.com/2010/10/09/going-the-distance-nike-gps-vs-runkeeper/>
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4. <http://techcrunch.com/2010/10/09/going-the-distance-nike-gps-vs-runkeeper/>
5. <http://www.dailywireless.org/2010/08/05/adidas-micoach-vs-nike/>
6. <http://gizmodo.com/5479456/adidas-micoach-pacer-review-like-nike%252B-only-better>

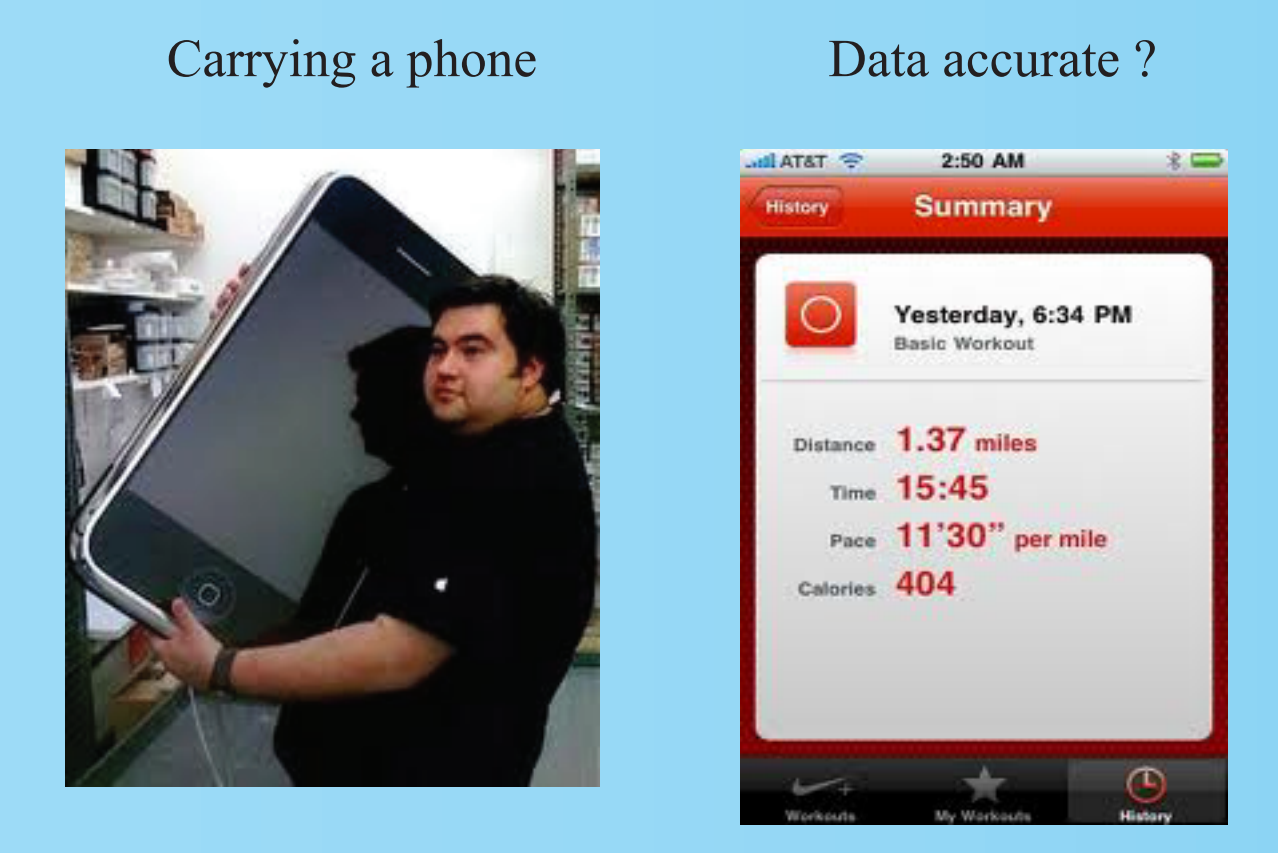
Interview questions:

| Pre-Study Interview | Workout Diary | Post-Study Interview |
|--|--|---|
| How would you describe yourself? (1-6) 1. Not thinking about becoming physically active. 2. Thinking about adopting a physical activity but have not yet started. 3. Sometimes do physical activities (describe what you are doing and how many times a week you do it), trying to figure out my fitness goals. 4. Involved in a physical activity at least once a week for the past one month, have decided what physical goals I want to achieve and how am I going to do them. 5. Have been physically active for almost 6 months, focused on some fitness goals. 6. Have a very active lifestyle (regularly perform an activity), maintaining my fitness goals | What activity were you doing? | Describe your experience with this product on a scale of 1-10 (1 being a terrible experience and 10 being an amazing experience)? |
| How many times a week do you do them? How long does it last each time? | How long did you do the activity? | What do you like or dislike about the product? |
| What health-related information are you interested in collecting or monitoring (heart rate, calories burned, etc...)? | Which interfaces of the application were you using at that time? | What interfaces did you use most? and why? |
| Are you currently using any fitness products or mobile applications?(If so please tell us which product or application) | While looking at the screen did you find all information that you wanted? If not, what do you want to see from this interface?(Feel free to provide us sketches of the interfaces that you think better serve your purpose or can improve the interfaces that were being used) | Do you feel that the product provided the required information? |
| | How would you rate your experience with this product on a scale of 1-10(1 being the lowest and 10 being the highest) Do you think it was useful? How could it be improved upon? | How was your experience with the feedback from the product and what would you do to improve it? |
| | | What do you like or dislike about the physical design? |
| | | Which app/ sensor did you like the most? The least? Why? |
| | | How would you describe yourself now? |

User liked:



User disliked:

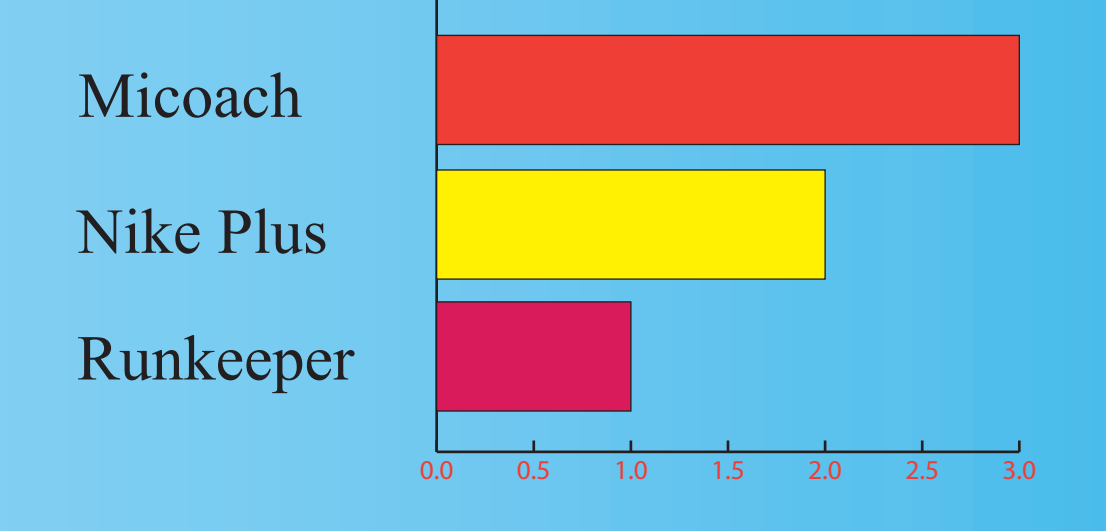


Result

User Testing Result :

- A total of 6 users participated user testing

Application liked most:



- User testing final analysis

User Interested: Calories burned, distance and pace

User Liked: "lock" feature, feedback, Music interface, GPS interface, Social interaction with friends, simple design, voice instruction

User Disliked: carry a phone, map feature, physical design of Micoach(band), requires to purchase related product(shoes) , it stops when user stops

User Wanted: self-customize option, how accurate the data shown, simple feedback

Conclusion

Based on our team self-evaluation and user testing result we have come with our prototype.

Our proposed features of prototype contains:

1. Substituting a phone to sunglasses
2. Sunglasses will have features of following:
 - a. Heart rate monitor
 - b. voice instruction
 - c. MP3 player
 - d. Displaying image on lens