Weekly Assignment 2 – Brainstorming

Team:
Drew Gitlin angi1801@colorado.edu
Cole Mystrom comy7585@colorado.edu
Erika Bailon erba0445@colorado.edu

Brainstorming problems

We often forget where we put the things we grabbed after using them. Having a tracking a device that will be able to track the stuffs we grab and where we put them down would be awesome!

GPS/Tracking device that will let you know how many mountains, how many rounds and which mountains you snowboard/ski for the day.

Tracking the numbers of reps in your routine in the gym.

Decision:

App or Device to track the rounds, which, and how many mountains you did for the day.

Unstructured Brainstorming

The app will contain the information of other users and will rank everyone's time and points to encourage people to do better rounds. There is an app called Strava for biking, so the idea will be something similar that will track the trails you skied.

Maybe we can create a device that will be able to calculate the acceleration or calibrate the movement and will be able to track your flips or turns and that will give you more points that just going down the mountain in a straight line.

We could also have a smaller device that will be more accurate and calibrated to measure your type of skiing.

The device/app can have a GPS to find people you care about after being inactive or in a single place for a long time or certain minutes that you can set on the app. You can set before you start your trail and the signal can also go to ski patrol to let them know you have been there for a while and might be in danger.

A track of how many rounds you have done so when will be the time to wax your skies.

Structured Brainstorming
3 attributes
     watch
     app on your phone
     own device
3 technology features
     GPS

Alarm
Acceleration tracking
3 users
Kids
Professionals
Amateurs

Randomized selection

1. 1st randomization: This will be an iPhone application with a GPS signal to track progress, speed, time, and which mountains the skier has visited. This is an idea for amateur skiers who are looking to get better and they will be able to see their stats using this application. For example, every run will be timed and if they are a racer or big mountain skier, it will allow them to see their progress along with others around the mountain. At the end of the day, they will be able to see how many runs they did and total vertical feet.
   a. 1. iPhone/Android application that everyone may download on their cellular device.
   b. 2. Using GPS signals, the app will track the runs, lifts and vertical feet you have achieved that day, and store the data for the whole season.
   c. 3. Runs will be timed, and fastest times will be displayed on each run. Friends will be able to see the scores of other friends.
   d. 4. If skiing in the backcountry there will be a unique feature that will contact ski patrol if one falls or is caught in an avalanche.
2. 2nd randomization: This will be watch for kids that will have setting to send an alarm to people connected to the watch whenever the kid has been in the same place without activity for the time the application is set.
   a. It will be a watch that will be appealing for kids to wear, with changeable bands and sized. Also, it will water proof and the display will be either 38mm or 42mm.
   b. The watch will have a layer of some microfiber material that will help keep dry the space between the skin and the watch, so the watch does not desynchronize or gets any damage that will prevent the signal alarm to go out.
   c. The watch will allow you to go to settings and set an alarm that will send an alarm in case the kid spends more than the time set, in a single place without moving. This will help in case the kid got hurt in the middle of the trail or off the trail and people will go find him.
   d. The watch can be synchronized with the local ski patrol, so the alarm can also reach the ski patrol and more people are aware about one kid being stuck, or in danger in one zone.

3. 3rd randomization: Own device that will measure the Acceleration and it will be design for professionals.
    a. A small device that is about the size of a credit card (but much thicker) so that it fits easily in those ski pass pockets if desired. It would be designed to take shock impact and at least be water resistant.
    b. The device is aimed at the professional community with hardware/software to track individual lines and styles. This device also counts, and times runs.
    c. Using the data created by the gyroscope/accelerometer, the users will be able to track individual progress by comparing to the data created by their friends' or mentors' devices.
    d. Device will be built similar to the older MP3 music players so that they can be used with gloves and has the right screen lighting and filtering for easy visual access outside and with goggles.

3 sentences reflection
1. I liked the structured brainstorming because we were able to get more deeper into the details. However, I don't like that we weren't asked to pick one final idea and work more towards it. I would've love to come up with ONE final idea of the device and work more into it. I know is not the project we are doing for the class, but I think getting to a conclusion and working more towards it, could be really nice.
2. I liked how we have to do the randomized selection just, so we can go more general about it and that gives more ideas for a final decision.
3. I was not surprised about what we came up with because we live in Colorado and winter is coming soon so all people think about is snow!