Skyler Booth
Technology Innovation
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January 19th, 2017

Personal Reflection-Project One

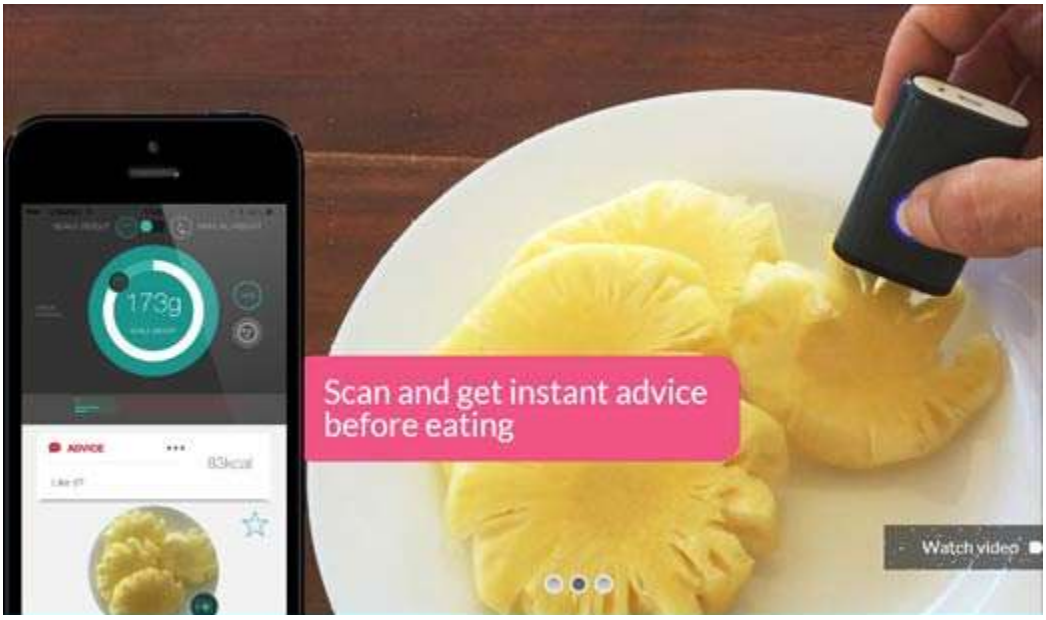
I am Skyler Booth, a junior at Indiana University, studying Informatics with a cognate in security. I am minoring in Human-Centered Computing as well as premed. I am taking this specific course in order to fulfill my last HCC minor component and to fulfill my last advanced informatics elective requirement. I was also interested in the course to gain more experience/knowledge about pitching the idea to investors/companies and prototyping products.

Overall, I believe that I am an innovative person/thinker. There have been many times where I have taken products and repurposed them for a very different reason than what they were designed for. I have also had many ideas for innovations to current products. One of these ideas is a modern sporting rifle that has multiple caliber conversions. This concept sort of already exists in the pistol-caliber carbines but there is not any in the rifle cartridge field. My design would include a lower recover that would have a magazine well that could hold the largest caliber, a .50 BMG, as well as hold one of the smallest, a .22 LR. The way I would do this is have all the outer dimensions of the magazine be the same but the inside dimensions be scaled down to each specific caliber. With each conversion there would be a bolt, the part of the rifle that feeds/ejects each cartridge as well as the accompanying barrel that is drilled and rifled for the same caliber. To change calibers, the barrel would come off with a simple twist of the barrel lock, the barrel would be removed and the bolt would slide out, then the user would slide in the new bolt, screw in the new barrel and insert the new magazine and be ready to go. This is just one of the many ideas I have about innovating and improving some current products, and considering their elaborate detail and modern thinking, I'd say I am innovative in nature.

As everything in life, to some extent, I believe that I can learn to be more innovative. I think innovation is part science, part skill, part imagination, and part courage. There is an acquired skill when it comes to innovation as well as a certain way of thinking. The more you are immersed in thinking of ways to better a product or how to repurpose a product, you become better at doing it. You also get better at recognizing the needs of the world or target audiences which can further enhance your skills in innovation. You also can become better at recognizing practicality and recognizing if implementation is realistically possible. So yes, I believe I can learn to be more innovative because I see part of innovation as a skill that can be learned or improved upon.

The technological innovation that I brought into class was the TrackingPoint Rifle System. In my opinion, this system reinvented the way firearms optics function. Let's start off with the traditional way of shooting through "normal" rifle scope. First, a user would sight in their rifle, this just means to get the scope aligned with the target at a certain distance. Then the user has to find the drop rate for the specific ammunition and caliber. So to make an accurate long range shot, the user needs the rifle, a weather station, a range finder, their bullet drop chart, and a device to make the accurate bullet drop calculations. The user enters in all of that data into their device and then adjusts the scopes turrets, the device on the scope that moves the crosshairs according to all their calculations. The user could still miss the shot for a few reasons such as the wind speed changed, their target moved, they anticipated the recoil and flinched as they pulled the trigger, etc. The TrackPoint puts all of those extra devices into the scope itself. The scope will lock onto the target when you squeeze the trigger. The scope will then collect all of the data—the wind speed, target movement speed, the humidity, the time of day, the bullet drop rate, and more. The scope then calculates how the bullet should act in-flight and then will bring up crosshairs on the display. Once the user lines up the crosshairs to the target, the bullet fires instantly, which takes away the chance for the user to flinch, because they don't know exactly when the bullet will fire.

So why is this product innovative? First off, it eliminates all the pains that come with using a traditional rifle scope, from sighting it in to carrying all the extra gear needed to make it work accurately. Also it eliminates all human error when it comes to shooting, turning anyone into an expert marksman. This product went up against elite snipers in the U.S. military. They shot, on average, within a 4 inch diameter grouping at .57 miles. The TrackingPoint Rifle System shot the same distance but its grouping was a half inch grouping. This proves the product accomplishes what it was created for and improves upon the already existing technologies. This is why I think this product is innovative.



The recent product I found to be innovative is the DietSensor. This technology scans food using an application and a sensor device to analyze nutritional values of the food and drinks. I think this product is innovative because it revolutionizes the way people, specifically diabetics, monitor the food in which they ingest. It's also especially innovative to me, because my mom has Type 1 Diabetes and there have been a few times when her blood-glucose level has gotten to super dangerous levels. So this technology is especially innovative because it solves an issue that hits home for me. I believe this technology follows the trend of the Internet of Things because it's an application on mobile devices.

The application currently analyzes the nutritional values of any food. The application also takes in personal information, such as height, weight, diet restrictions, and other health issues. It takes this information and can calculate, based on the data from the food scan and the user data, the portions in which a user should eat and how it will affect them. It also tracks and logs everything; so if a user loses weight or their average blood pressure goes down, they can determine what eating habits attributed to that.

The problem in which this product addresses, is that diabetics currently have no way to predict how food would impact their blood-glucose level. This is a huge issue because if their blood-glucose level gets too high or too low, it can cause irreversible health damage and even death. Now, with this product, they can accurately predict the impact on their blood-glucose level and can take accurate amounts of insulin to deal with sugar intake. The old way was to eat, wait for the sugar to be absorbed, check your blood-sugar level, and finally administer an accurate amount of insulin. This method is ineffective because a food can contain more sugar than someone would predict and could cause a very high blood-sugar spike that can cause irreversible damage. That's why this way is inefficient and the DietSensor can solve this problem by measuring a foods sugar content and telling the user how much of the food they can "safely" eat.

Creativity, to me, is the ability to image things or create things in your mind that haven't been thought of before. Innovation is the ability to create something new or adapt something for a new purpose and is usually tailored to solving a problem. Finally, entrepreneurship is the ability to take an idea or innovation and making a profit off of it. Someone can be creative but not innovation, because they can think of things that have no way of implementing the idea. Someone could also be innovative but not be an entrepreneur, because they can create something or reinvent something that solves a problem but loses money on every unit sold or could be too costly to produce.

Works Cited

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