

### **Improvement: The Internet of Things**

The Internet of Things is a vast and growing infrastructure of interconnected... things; things which are all connected in a large virtual network via wireless internet. Mobile technology, bluetooth, PLCs, embedded systems, GPS, smart devices, all of these things contribute to the growing number of devices connecting us to everything around. The many possibilities of what we can do with these devices is increasing as we find out more problems that can be solved.

Mobile technology has improved the quality of life vastly. We use mobile technology to solve every problem from business, to personal, to social. Cell phones allow us instantaneous communication with almost everyone in the world. People conducting business now have access to clients and customers far beyond their physical geographic locale. They can outsource production and keep in contact with distributors and clients instantly to provide a custom tailored product/service experience. In the social realm, smart phones allow us to keep in touch with family and friends that are otherwise located, build and maintain a social presence via Instagram, Facebook, or Twitter. Further, many users find that they can build their own brand and monetize their social interactions.

GPS is a way to utilize geo-spatial information from satellites for our own personal use. GPS is used with mobile technologies to give us information to interact with our surroundings. With GPS we can navigate through unknown areas with the assurance that we'll end up somewhere we intend. On a more passive role, GPS allows us to keep track of our children and family, our belongings and houses, and information about the weather in our area. Police use GPS to monitor crime and collect vehicle information.

Smart devices, devices which can be connected and manipulated via human interaction, are making great advances toward easing the "burdens" of life. Now we can lay in our beds and view who's ringing our doorbell, Amazon buttons allow us to order products we need at the touch of a

button. My office has a lock on it that can only be opened with the August application and bluetooth connectivity. This may seem trivial, but there are projects that are attempting to make smart cities. Whole urban sprawls connected to the internet that allow citizens to get information about public projects, city bus schedules, and much more.

### **Dis-Improvement: Compound Interest**

“Compound interest is the 8<sup>th</sup> wonder of the world. He who understands, earns it; he who doesn't, pays it.”

Albert Einstein

Compound interest is a great thing, it basically translates to money that makes more money the longer the money has time to make money. So if it's so great, why did the author of this paper list it as a dis-improvement? Because the author has student loans. Now, the effect of interest can be mitigated by selecting a proper payment plan, making an effort to pay more than the minimum amount and paying down the loans with the highest interest rate first, but it still seems like so many people have trouble with that. It's seemingly caused many people to forgo pursuing the “American Dream” by forcing people to choose between buying houses and having children and surviving happily.

Perhaps the newest high school graduates will think more thoughtfully about their post-grad options. Whether college is a right choice, they'll have to study in a program that will actually get them a good job. The military could also be an option, which will give them functional training and an education. Further they might decide to go into a profession that may or may not be automated in the future.

## **Future Improvement: AR**

AR, or augmented reality, is the integration of computer technology with the human experience. It allows us to heighten our experience by enriching the mundane-ness of being human with real-time information, generated graphics, and sensory amplification. Currently, the state of augmented reality isn't fully actualized. We still have to find solutions to problems. With this, we'll need to first start building the software that will integrate with our AR devices. I got the chance to work on an augmented reality project for ISC 325, which tasked us with creating a virtual tour of the Oswego Safe Haven museum.

Fitness trackers are a form of augmented reality that help us augment our reality by helping us keep track of our heart rate, sleep, exercise, steps, and calories consumed. We usually buy these devices under the guise of becoming healthier, and perhaps because of this insight, we adjust our habits to coincide with the demands the fitness tracker gives us. Being healthier is an improvement on quality of life because people who eat better, sleep better, and exercise are generally happier, healthier and more fault tolerant. Perhaps in the future we might see these fitness trackers making healthy decisions for us.

I've heard of an application that will listen to people talk and translate what they say into other languages. This would greatly increase the efficacy of business and personal communication insofar as the translation service correctly translates the speech. Google translate is known to mis-translate things regularly. In the future, I hope we can find a way to translate between regional dialects, jargon, sociolects, slangs and various patois.

Drones could also be thought of as a form of augmented reality. They allow our military to extend their fighting power without having to endanger themselves. They allow us to explore everywhere we want and they help police invade people's privacy and monitor criminals.

## **Future Dis-Improvement: Automation**

Automation is the process of converting labor from a human to computer medium. There are parties on both sides of the debate that will say that automation is cheap for companies, less mistakes will happen, etc. And detractors say that automation will reduce the amount of jobs available to people. I'm in the camp of people who think that automation will totally ruin society. Nobody will have jobs, nobody will have any money and nobody will have any purpose. I suppose the economic model of the United States will have to fall under some extreme socialism scheme whereby everybody works for the state and has no incentive to work. At this point we've taken away everyone's survivability fear in that everyone will probably be supported by the state and have everything paid for, and that might be happy for some people, but I don't think it would be happy for most. People thrive on competition and doing things and we need to keep