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Cybersecurity 494

### Entrepreneurship Proposal

There is a huge problem that we are all facing today. You ever leave home and later realize that your phone isn't charged and you left your phone charger at home. It's too late to turn back and get it because of time constraints. Maybe your phone was fully charged when you left home, but you've been out and about all day and hadn't had the chance to charge your device. What if your hanging out with a group of friends, you need a charger, but no one has the same type of phone as you; so their cable connector isn't adequate for your device? The issue with these scenarios is that you might have an emergency situation (car accident or stranded) where you can't communication with anyone to get you to safety because your phone is dead.

We know this is a problem because scenarios like these are happening all the time. Many people who may travel occasionally will purchase portable chargers as a back up for when their phone dies. The main issue with portable chargers is that they could be too expensive for some people to afford, as they range from 20 to 280 US dollars. Portable chargers are very convenient, but they also need to be charged. I have two that I purchased for around 60 dollars each when I traveled outside of the country and they usually take two full hours to get a full charge. Inconveniences could include being too big and bulky to store in your pocket, breaking, or just straight up losing them. If you forget to charge your phone, and you forget to charge the portable charger, you're right back where you started.

In today's world of technology we have wireless charging capabilities where you can use a cord or cordless horizontal pad to place your NFC (Near-Field Communication) capable device on to wirelessly charge. NFC is a set of protocols that allow two devices to connect or communicate through radio frequency and Bluetooth technology. The solution to the problem would be to expand the range of the technology that already exists. Imagine walking into a room and automatically your device starts to charge. Basically there would be some sort of access point that would send out frequencies in an enabled room that are capable of charging electronics. Sound familiar? Similar to how a router works in a home network, which allows you to access the internet wirelessly; wireless charging is basically wi-fi with charging capabilities. It would be a total game-changer if you could have wireless charging everywhere that you could have wi-fi (home, restaurant, car). Our cellphones, laptops, and tablets would never die.

Barriers that could prevent wireless charging from being a success would be radiofrequency radiation which is a form of electromagnetic radiation. The same radiation used in cellular devices that already pose a small risk to human lives, as too much radiation could cause cancerous reaction in the human body. Interference could also be a barrier that would cause for an inconsistent charge. For example: when you're in you car scanning through radio stations to listen to, you may notice that some stations sound very static-like and you can't quite make out what's being said or the music playing. That's called radio interference. The same

concept for wi-fi connectivity; If you're too far from the router or there are thick walls between your devices and the internet source, it would dilute the signal strength and ultimately be an annoyance.

It takes time to get technology to be extremely efficient and consistent. Cell phone technology and connectivity didn't happen overnight. There were a lot tweaks and upgrades involved. The ability and power of wi-fi today seemed unthinkable twelve years ago. With that being said, wireless charging is within reach and very possible; It comes down to a matter of making it safe and efficient. I will know I'm successful when wireless charging becomes like second nature in everyday lives. When it gets to the point that you can't remember what it feels like to not have it. When our great grandkids look puzzled when we tell them that once upon a time we charged our devices with cords plugged into wall outlets. That is when I feel wireless charging is successful.