



## **Methodological approach**

I wanted to divide my project into three perspectives; Research and Design (R&D) in the medical sector, IT security and Value Sensitive Design (VSD). I divided it into these three perspectives because many innovations are developed and released but never used by customers. I wanted to discover how it is possible to create an IT service that everyone will use, as mentioned in my question.

The methodological approach I used was to conduct conversations with three people. These three people all had a different perspective on IoMT, but all three had outstanding knowledge and passion for the subject. As the interviews were all online, it was easier to start a conversation with them. I wrote down the data I got out of the discussion and defined important variables about making the IoMT work for everyone, everywhere and every minute.

After collecting the variables, I started playing with them by integrating them into the final model of my project, as shown in figure 1. I am an IT student, so I will always model my data from an IT perspective. To minimize my blind spots, I asked my parents to review and challenge my models. With this approach, I tried to minimize my "IT assumptions".

## **A detailed description of the results**

When I finalized my model, I searched for connections and relations between the variables. This process helped me to write the story you are now reading. I also identified one variable; this one seems to be dominant. So I decided to describe it in more detail. By doing this, I was able to create headlines for my mini-project.

The headlines are The Level of trust of stakeholders and the resistance removal, the need for IT to be trusted for the sake of privacy and the power of Value Sensitive Design.

## **Conclusion and recommendations**

### **Level of trust of stakeholders and the resistance removal**

As shown in the model, almost every loop is connected to the variable *Level of trust of stakeholders*. The reason for this is that these are your consumers. When customers do not trust that their data is 'online and safe', they will not use this technological improvement. According to the professionals I interviewed, there are always stakeholders who are being forgotten. This decreases the less Level of trust of these stakeholders, increasing their resistance: the more resistance, the less opportunity for IoMT to develop. Vice versa, if there would be more opportunities to build the IoMT, more funding for transdisciplinary research would be available. With transdisciplinary research, we can dissolve the boundaries between traditional fields and disciplines. If we reached this, there would be more public engagement. This will, in turn, increase the trust of stakeholders because the research was engaging the public and trusted.

### **Need for IT to be trusted for our privacy**

Because of the importance of privacy, customers need to know where their data is located and that it is safe. IT and privacy is the second perspective that I investigated. To take care of this topic, we need to be conscious of the possible effects of online data. There are many possible ways and places to store data, also personal data. We need to centralize our data to a safe place with strict conditions. If we concentrate our data in a secure place, there are fewer problems with laws about online data, improving the legal opportunities of online data. The more legal options of online data, the higher the trust of stakeholders, emphasizing the previous paragraph.

If we manage to store the data in a trusted, centralized place with strict conditions, there is another IT problem to deal with. At this moment, there are many possible programming languages to make

biometric data digital (Quora, 2020). The more programming languages, the higher the chance for hackers to find a leak, causing the need for prevention. We can manage this by testing the languages. The more languages we try with security in mind, the higher the chances of getting a verified and secure language. This will also help us to avoid problems with laws.

### **The power of Value Sensitive Design**

Now we can gain the trust of stakeholders through the technology; we have to develop the technology so that people will use it. This is the following perspective I investigated. Value Sensitive Design (VSD) is a commonly used method in developing technologies. It brings human values to IT design. The more human values are reflected in IT design, the more social acceptance we get.

This is where the VSD methodology comes into the picture.

The VSD method is very much involved with the design of the product but in the right way. If we design the right product, people will start using it. When people start trusting and accepting the product, they will start using it (Candra, 2014). This will achieve Public Engagement, which is, of course, connected with the Level of trust of stakeholders.

### **Recommendations**

Now that we've gone through the most important things of my mini-project, I would like to provide a closing remark.

We are in the fourth industrial revolution, where the Internet of Things is, and will, become a hugely influential force (Schwab, 2015). That's why we must get this workable. How do we ensure that everyone accepts it and that it is safe before we start using it? This has become clearer to me by carrying out this mini-project. I will continue to follow this topic and hope to have a part in its development one day.

A proposal I want to make is that in the future of IoMT, privacy and data storage should be prioritized. Privacy has become more critical than ever, and if we cannot guarantee data safety, people will never use this powerful technology. This would be a shame because there it really can improve human health. We just need to gain trust by showing where the data is stored and that it is safe.

With that said, it is time to come to an end. I would like to say a big thank you to everyone who helped me carry out this short but eye-opening project.

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