Intelligence Information Systems

My plan is to enable the Information Systems to be more intelligence. Currently, most of the data inputted by systems is structured data. I want to improve the systems which can understand what people say and write. So that it can help us analyze and predict business prospects based on people’s communication.

There are two main innovative functions of this system. The first one is unstructured data input and output. How to understand human’s language? My system will use Natural Language Process (NLP) to “read” or “listen” people’s language. Moreover, when the system can know user’s questions, it can seek answers from the large business data in the system. This way is even more efficient than experts. I think the technology for this function is mature since you can find a lot of APPs in the APP store, such as Siri, Google Assistant.

The second function is information analysis among different types of data including the structured and the unstructured. This is more important and also more difficult. The first step is to capture the key points from the important documents or leaders’ speech. Why not fetch and input manually? This is because different people have different view for one document. The important part could be missing by manual process. So the way that I will do is just to input these original data. So the system can learn by itself and become an expert through enough case studies. And then the second step is to combine other type of data to analysis and forecast. Due to analyzing the CEO’s speech and important documents to understand the company’s strategy, the system can monitor the financial, sales and production data to see if these business processes meet requirement and give feedback to decision maker. I know this is very difficult at the current stage. But it will be my long term goal to fulfill.

I think this system can attract many companies. It is not necessary to accomplish all functions before selling to employer. Some basic functions can also add more values to the company. For example, the company’s staff can communicate with systems by human’s language rather than the programming language. They don’t need to spend extra time to learn how to interact with the system.

How to implement this systems? Iteration will be the most useful mode. Since there are too many problems to estimate the precise results. Most technical tools are emerging and may have some issues. So these functions should be finished step by step. And we can test each independent prototype and see if it meet customer’s expectation. As mentioned above, there are many unknown issues and problems. So although analysis and design up front is necessary, we need to revise and upgrade our design all the time. Furthermore, the team work will benefit for this project. We need to collaborate different resources to handle the various aspects of this project. We can use Scrum methodology to perform this task. Self-management can make our decision to be as reasonable as possible.

For this project, I set up the low level and high level goal. The basic functions such as seamless communication with staff can bring great convenience to the company. They just talk to the system what they want and then the information can be displayed. On this basis, we can improve the high level of this system to make it to analyze complicated data and give some feedback to people by its own view.