IPS AS A TOOL FOR DESIGNING TO IMPROVE THE CARE FOR PEOPLE WITH DEMENTIA

What is IPS?
IPS, Indoor Positioning System, can keep track of the location data of each People with Dementia (PwD) and their caregivers over time. Therefore, it can generate quantitative and objective data for the location-related factors which might influence BPSD for each PwD. The location data is shown in the table.

Stakeholders for PwD
A map was created to give an overview about who are the relevant stakeholders: caregiver, manager, dietitian, doctor and psychologist are selected to be the most important stakeholders when providing care service for people with dementia.

Design requirements
People with dementia who exhibits BPSD share very different behaviors from other’s a lot. In order to provide good care service for each client, it’s necessary to involve all the stakeholders who are currently serving for this target group, as showed in stakeholder’s map, chapter 5. By improving supporting their work and improving their working efficiency, the clients can get better care. Therefore, it’s also important to enhance the connection between all the stakeholders, making the communication easier.

Design outcome
Designing a new system to improve the care service for people with dementia who exhibits BPSD by using IPS data insight, Supporting the works of relevant staffs contributes to the care service.

User scenarios
After a short holiday
When a caregiver comes back after a three days’ vacation, she wants to know if she has missed something important in those days. Therefore, she checks the system and goes through the report interfaces. To reveal the information, she turns on the system and goes through the report interfaces. She finds out that Frank’s mood went down a lot after the last week, while the client contact time is less than before. She believes that these two things may be related, therefore she writes it down to be discussed in the later meeting.

Before a meeting
Today is Tuesday, and in the afternoon, there will be a regular meeting among caregivers, manager, doctor and psychologist. This time, they are going to discuss Frank’s behavior over the last period to decide if there is anything should be changed for him. Doctor will hold the meeting for this time, she opens the system and goes through the report interfaces. By looking at the data, doctor finds that Frank’s mood went down a lot more than before in the last week, while the client contact time is less than before. Therefore, she believes that these two things may be related, therefore she writes it down to be discussed in the later meeting.

When client gets agitated
Marry (caregiver) works for nursing shift today, and this morning she opened meal time in the dining room helping them to get washed. When she finished the cleaning task, she comes to the living room. She finds that Frank is very agitated right now, while he is in the only one staying in the living room. Therefore, it’s necessary to involve all the stakeholders who are currently serving for this target group, as showed in stakeholder’s map, chapter 5. By improving supporting their work and improving their working efficiency, the clients can get better care. Therefore, it’s also important to enhance the connection between all the stakeholders, making the communication easier.

According to the World Alzheimer Report, nearly 50 million people are living with dementia worldwide in 2016, and this number is expected to increase to 131 million by 2050 (World Alzheimer Report, 2016). While the number of people living with dementia keeps increasing rapidly, currently there is no cure for this disease (Alzheimer’s Society, 2018; World Health Organization, 2017b). Due to the fact that dementia is such an impairful disease, more focus should be put on how to improve the quality of life for those living with dementia, instead of just finding a cure (T. P. Elmaleh et al., 2005).

BPSD, defined as “behavior and symptoms of disturbed behavior, mood, thought, or perception” (Kales et al., 1991), is the worst symptomatology among people with dementia. In fact, this symptomatology has a high degree of frequency and is present in at least 50–80% of patients (Kales et al., 1991). Moreover, around 97% of PwD will develop at least one symptom over a five-year period (Steinberg et al., 2008). Due to the extensive spread among people with dementia, it is chosen to be the target group of this project.

This project aims to improving the care service for people with dementia who exhibits BPSD (Behavioral and Psychological Symptoms of Dementia) by providing the relevant stakeholders data insights, and meanwhile improving these people’s working efficiency.