Smart Fridge phase 2: Developing the idea

Following our project proposal, we felt overall it was a success. However, Stavros called us back to the drawing board for further development on the concept which we feel was really helpful in developing the idea into something more. The main things to consider were the amount of tech we were planning to involve and the amount of contextual ideas this fridge was going to be aiming at. Overall we felt as though it needed to be simplified to avoid overcomplicating it as it is only to be a prototype. We also decided as a collective that to really achieve our goal of creating a project to better the lives of the population, we needed to reach out more to the concept of ubiquitous computing.

When thinking about how to alter the design of the technical aspects of the fridge we had to think about the timescale in which we have to make this fridge work and also how necessary it was to achieve a solid demonstration of the concept behind it. We wanted to avoid over engineering it. With this in mind we decided that for a first iteration we wouldn’t need a mobile app. In terms of just demonstrating the project this can be done much more simply through simply mounting a screen to the fridge that connects directly to the raspberry pi for viewing the inventory and data of the fridge as in terms of the prototype there will only be one unit and one user. This was the main thing to remove, however we also decided to focus purely on the scanning of the food to enter it before focusing on other secondary ideas such as and RFID scanner on the door to detect when its opened and scales underneath the fridge to detect when items have been removed etc. This is because the primary and most important function of the fridge is to be able to record what’s entered into the fridge and input this into the database alongside its product data such as best before date and nutritional values.

In terms of the contextual aim of this fridge we originally looked at the fridge being a device to show us both our amounts of food wastage and eating habits from a healthy dieting aspect. However again due to wanting to streamline the design and intention of the project we are planning to narrow it down to one or the other. We feel as though it might be more effective to focus on collecting nutritional values of what people are including in their diets due to the ongoing obesity and health crisis and recent healthy eating and living trends which are very current in western culture through social media at the moment.

The shift in the contextual aim of this project also leads on to how we wanted to reach out more to the idea of ubiquitous computing. Taking inspiration from the book “Consuming Technologies – Media and Information in Domestic Spaces” by Roger Silverstone, Eric Hirsch and David Morley the book talks about the idea of the home forming and containing its own “moral economy” made up through the life experiences of its inhabitants and how they’re moulded over time through their individual experiences and together - “The household is a moral economy because the economic activities of its members within the household and in the wider world of work, leisure and shopping are defined and informed by a set of cognitions, evaluations and aesthetics, which are themselves defined and informed by the histories, biographies and politics of the household and its members”.[[1]](#endnote-1) The idea of the fridge is that the different data sets across multiple homes will be supplied by these “moral economies” of the home and collected by the fridge to then be sent to a wider space online commonly known as a “cloud” which could then give us an insight into the overall eating habits of the country. This can then become useful to us to see how healthily the country is eating and the data could be useful to organisations such as the NHS and supermarkets in tackling the current health and obesity crisis. The shifting in ideas from making fridge “smart” on a one on one basis to making it share data to a public cloud to connect the entire populations eating habits marks a very major and important shift in the conceptual design of this project.

1. “Consuming Technologies” – Roger Silverstone & Eric Hirsch, Routledge, 1994, London [↑](#endnote-ref-1)