WASTE NOT WANT NOT

## REFLECTIVE JOURNAL

Open PDF

HotDog

SELECTION, RESEARCH

BRIEF SELECTION

To select the briefs, we were dropped straight into our teams to go through the 12 briefs. We went through them and decided that the best decision was a quick decision. Reading basically the titles and the briefs, we selected a few we liked, and a few went straight in the bin. From those few we discussed further, narrowing it down to the Good Life, Waste Not Want Not, and Fair Share.

The Good Life was basically rejected because we thought we would find it hard to focus on a specific condition quickly. Fair share was interesting but we found that we would be much better off designing an app or service rather than a product so we cast that one aside. The charts were fairly unhelpful, and were basically done after we had already made up our minds.
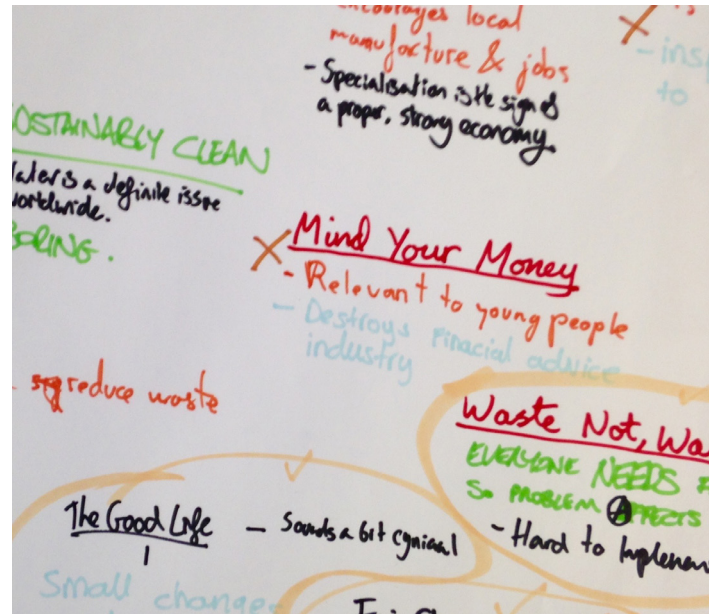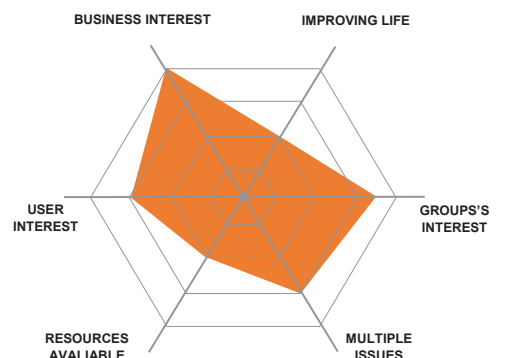

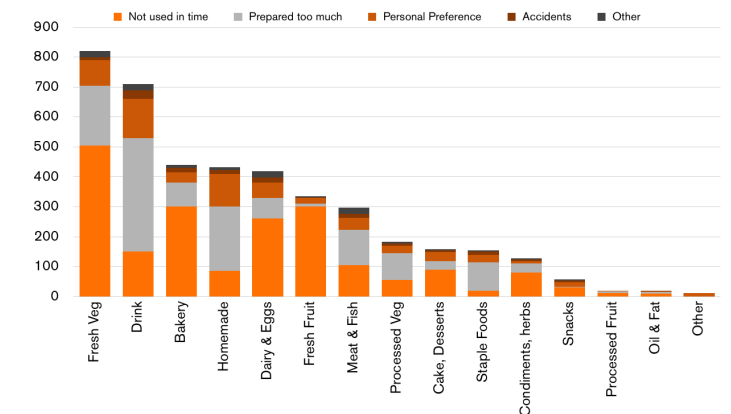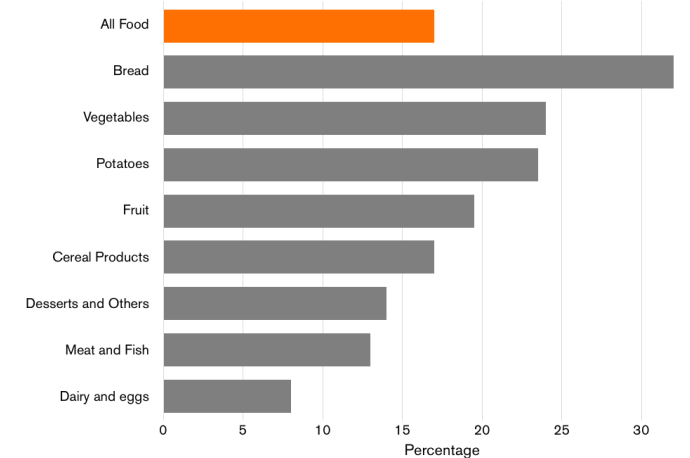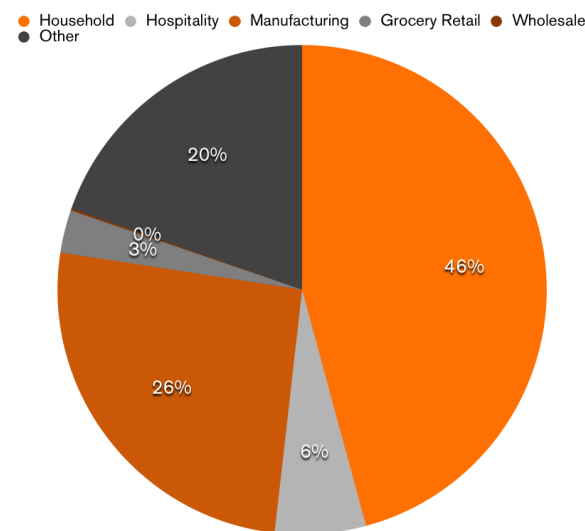**GOOD LIFE**
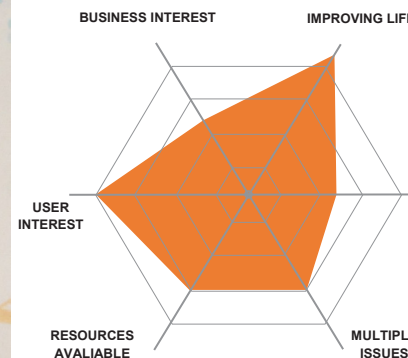
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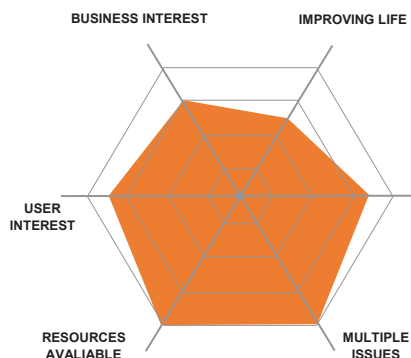
Fair Share

RESEARCH

Our initial research was carried out mainly Online. We struggled to agree on what we could actually find out about users at this stage, as we wanted to consider the wider problem. The task of research was divided between the members of the group, focusing on different areas. Mine were: what happens to food which isn't landfilled or composted; and food waste in retail. Speaking to a shop attendant from ASDA, I found there was little food loss from the retail side of things, as stores make a real effort to drive down commercial losses. The big find for me, was a parliament document which outlined all the general statistics. This gave us a helpfully wide scope on the problem at hand, and confirmed my findings about food waste in retail.

Legend: Household · Hospitality · Manufacturing · Grocery Retail · Wholesale · Other

Pie chart values: 46%, 26%, 6%, 3%, 0%, 20%

Bar chart categories: All Food, Bread, Vegetables, Potatoes, Fruit, Cereal Products, Desserts and Others, Meat and Fish, Dairy and eggs — x-axis: Percentage (0–30)

Stacked bar chart legend: Not used in time · Prepared too much · Personal Preference · Accidents · Other
Categories: Fresh Veg, Drink, Bakery, Homemade, Dairy & Eggs, Fresh Fruit, Meat & Fish, Processed Veg, Cake, Desserts, Staple Foods, Condiments, herbs, Snacks, Processed Fruit, Oil & Fat, Other

GRAPHIC DESIGN

I took an early handle on the visual language for the team, with the belief that visual integrity is an important thing for any brand or design. I planned to control the entirety of the formal presentation for team HotDog, which was probably quite a snide and rather oppressive policy.

I still included others in the formation of the design language, but as others didn't seem too enthusiastic about doing all of the InDesign sheets, it was a rather easy Coup d'etat.

The visual language of team HotDog therefore developed into a very consistent identity. Something which I am rather proud of.

HotDog
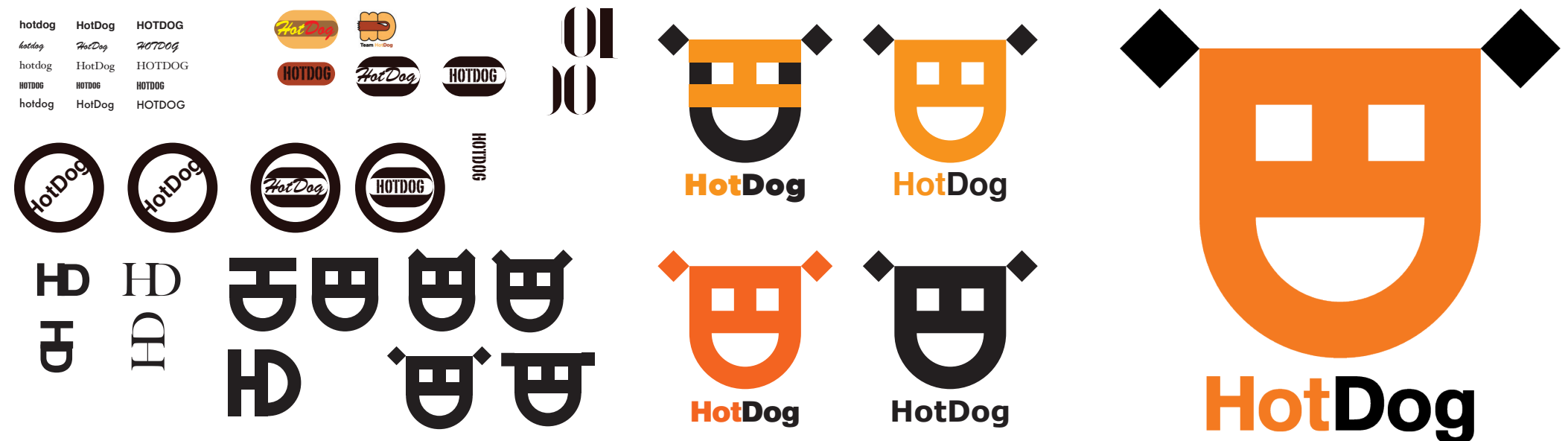
IDEA GENERATION

BRAINSTORMING

We began with having me in command, and it was hard at first to introduce all the team members to my own ways of working. In the end, we got working well, giving everyone a chance to lead, and got about 90 ideas on the wall.

Brainstorming is all about allowing the group to blue-sky-think, and we committed ourselves to a rapid, no holds barred style of problem-suggesting, and problem solving. Starting with such breadth agave us a good platform on which to work. I found myself referring back to silly initial ideas throughout the process, and finding a way of working them in.

After this session, we broke the ideas up into Good, Bad and Maybe. The good ones passed though and the 30 we accepted went on to the next stage. We went off to develop them over the next week. The ideas were randomly allocated to stop people being possessive over their ideas.

REDUCTION

At home, I developed the 5 ideas, and also produced a 'wildcard', the Gradient Fridge. We got together and engaged in an informal discussion about the ideas.

It was at this time we also had the first group presentation, where we discussed with the other WNWN group. This was helpful, as we were introduced to the other teams ideas.

We felt under pressure to gain real life insights, but after an hour of deliberation over what questions we could ask in a survey, and realising we couldn't think of anything, we decided to select and re-develop 15 of the ideas,, so 3 each, and focus on different markets - old people, students and mothers.

31
15

**HotDog
OneBite**

−20°C
↑20°C
◄ FREEZE
↓−10°C
0°C
2°C
↑3°C
◄ FRIDGE
↓4°C
4.0°C

**HotDog
Gradient Fridge**
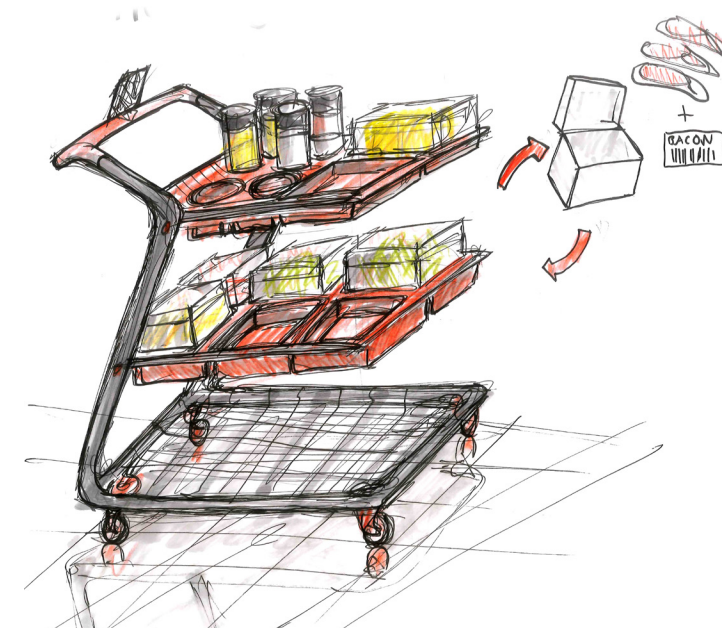
**HotDog
Neue Kart**

◆😊◆ CONSOLIDATION

SELECTION

Once we had the fifteen ideas it came to selecting an idea. Throughout the project up to here we had always been talking about an idea for a talking fridge, which no one took seriously at the start. It then came to us that we could really make it work, so we really just took the opportunity there and then.

It was good for us to choose an idea we were all clearly passionate about, as it led to enthusiasm within the team. I was however slightly worried that it would be hard to get focused on the issue at hand, as there were so many infinite possibilities with the idea.

After the selection we had to prepare for the interim presentation. This was at the same time as video prototyping sessions were being held. We actually chose terry there and then because we thought we could make a good video. Lilliana seemed impressed with our groups enthusiasm for the principles of system design, and our design was a perfect fit for her tutorial.

I was eager for us to get out and get videoing as soon as possible, even within the day, but we never quite managed that. We did get the video filmed and wrapped up in around 3 days though, which was impressive teamwork.

My main contribution was the motion graphics of the app interface, which was fairly easy to do in Apple Keynote. I went straight in and just started designing the thing, but was pleased with the visual look and feel of the demo, especially the animation effects, which have both functional and visual reasoning.
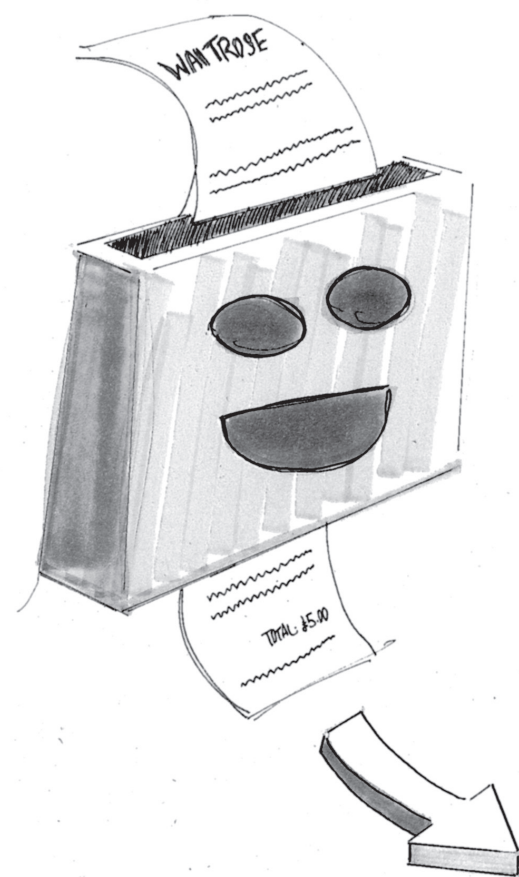
PRESENTATION

The presentation was quite a moment of reckoning for the group. We pulled together an interesting presentation, and a good video, but there were a lot of questions awaiting us.

The questions were very direct and asked us about very specific usage issues. It was quite tough to go through, and at the time I thought they were overly nitpicking our idea, which I believed to be fundamentally good. This was quite a dark patch for the team.

We got together a few days later, and I attempted to shore up support for the Idea by getting those who attended to sit and write down what they thought terry was. The reason the presentation didn't go so smoothly, I thought, was because there was no fundamental agreement on what the product was, given the wide possibilities of the concept.

We developed after that a detailed specification on what the product actually was, a blend of everyones thoughts designed to give us something to go off. We then identified the key areas which still needed defining, and the team members were given the task of finding out the specifics.

SPECIFICATION

WHAT IS TERRY?
First and foremost, terry is a cloud-based system capable of storing data on the food in users' possession, and able to understand users' habits to suggest better usage and purchasing habits.

PHYSICAL PRODUCT

Physically, terry is delivered as an on the shelf unit, this unit is an all-in-one unit, comprising of scanner (OCR & barcode), screen (flat panel LCD), and buttons.

Interface
In it's presented form, the device displays a face, primarily as a lock screen and subtle indicator of food condition. Such a display is software based, and the possibility for other themes is wide. Additional functions can be accessed 'past' this initial screen.

Power
The device is powered by hot-swappable batteries that are assumably fairly long lasting (1 week + ?)

DATA
Food Input
Food data is input primarily from the optical scanning of receipts.
A barcode scanner can get more detailed information, or input items where no receipt was given.

User Data Input
User data such as dietary requirements, name etc. (Which can be used algorithmically) is input verbally, or with the device buttons. The device does not have a touch screen.

User food use
Meals & food use is verbally input.
Manual button controls can be used as a backup.
Use of & Acknowledgment of Suggested recipes from the app allow for detailed & easy input.

Best Before Dates
Best before dates are assumed, in general, from live statistics based on all users.
Closer attention can be paid to user-specific 'high risk' areas, if necessary, these can be input manually, but this may only be 2 or 3 items per shop.

Notifications & Communication
Direct notifications on app if personally specified.
Visible face changes indicate food almost off or completely off. Verbal feedback may be used to correct terry's mistakes
1 day default notice period.

RESEARCH & DEVELOPMENT

TARGETING

We accumulated knowledge on the various elements: Power sources, screen types, database systems individually, and came together and shared our views on what was possible.

The next stage was to split up, interview someone from a specific user group, and design 'terry' for that user group. I got catering, which was a real challenge as it was hard to find restaurants which were open and had any time to chat. I found a source from a friend of a friend, and the interview was very informative.

The major finding was that there was no problem. The initial research had already said this, but it was interesting to see if i could make terry stretch. The proposal was a restaurant setup service, targeting new starts and offering them the whole range of services from design to supplying the food day by day. In the end it influenced the thinking in a small way, because it required no product, which opened the team up to the idea of offering pure services.

The team got together and presented the ideas one by one to each other, we then went though a discussion. This was the most heated discussion of the project, as there were lines in the sand between the people who wanted to have a small scale (free) product, and those who wanted more features. Me and Johny were the former.

The situation was tempered by having a cooling off period over the weekend, and coming together in a calm manner. I made everyone write a serious proposal for the future and it actually turned out everyone wanted similar things. The problem was no one knew what the other was arguing. The proposal became an idea to mix all of the user groups using intelligent marketing and a flexible system approach.
It was after this that we separated into various departments, I worked on the user interface with Olly, which included the visual design of the product.

Barry's Hot Dogs
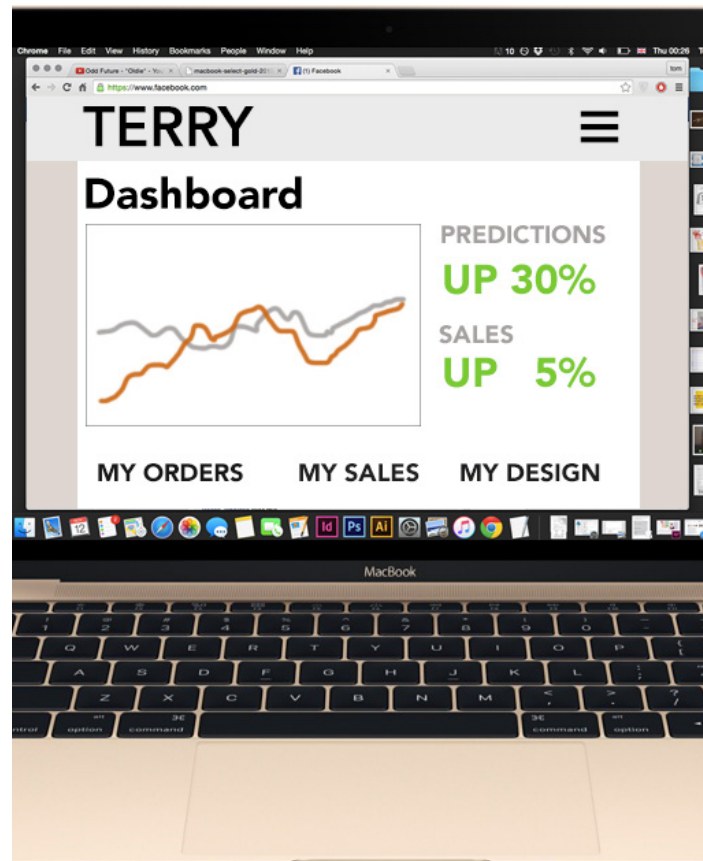
CATERING

David
Sous Chef
Formerly of The Sisters Restaurant, Glasgow
5+ years of experience

How were you and the other chefs aware of how much food was being wasted?

I guess our most obvious indicator was in how much we were chucking into the bin every day - how many times we had to get the porters to empty the bins for us... So there's a visual cue for sure.
We were less aware (pretty much unaware) of how much was coming back into the kitchen from the guests as we were not in sight of the returning plates.

Cool, did the manager use any technology to manage the stock levels and prepare the next food orders?

No, everything was done by paper trail and visual inspection of stock levels. I don't think I've ever worked in a kitchen that uses technology for that!

Did you ever come into any problems such as not having enough food for customers or buying too much and having to throw it away as its past it's sell buy?

The latter is certainly a much more common situation than the former. It'd be a bit of a sin to have customers in that you can't feed - that's wasted profit right there! Over ordering more common, but still pretty unusual. Most restaurants have a decent handle on their clientele levels if they've been open for a year or more. But still, yes, occasionally spoiled or past-sell-by food was binned.

Thanks a lot. Last question, was there a computer that the general back of house stuff was done?(Paperwork etc) Was the product ordered on-line, over the phone or was it face to face?

No computers in the kitchen, all clipboards and paperwork, haha! Ordering either done over the phone with select suppliers or face to face at markets (usually only in higher end kitchens). Hope that all helps!

What's the project, out of interest?

Cheers, we're doing a design project on how we can use a new product to reduce food waste. Looking mainly at homes, but expanding a bit on the research in other ares. looks like there's not much of a problem in kitchens, which is a good thing!

Appreciated you taking the time.

Ah, interesting! Aye, when kitchens are running on tight budgets, they tend to hate you wasting stuff. I think most places run to a tolerance of 20%, which is actually pretty high... A lot gets recycled for staff lunch and dinner, haha!

No problem, any time!

⊙ INDUSTRIAL DESIGN

I proposed the touch bezel as a way of interacting with terry, as it was wondered whether we were going to use a touch screen and it was pointed out that greasy fingers would interfere. All the buttoned devices I had postulated were ugly and likely unable to cope with crumbs.

I have placed the 2002 iMac here as it shows us how the large, glossy white bezel is asking us to touch it. It is a great piece of Industrial design and I wondered how terry could do something similar.

Siri has stood as an example of the possibilities of connected personal assistants, it had been used as an example by all throughout the project as an indication of the possibilities of big data. Our scheme is nowhere near as ambitious as Siri, as only about 3 commands are required. In the end we left voice activation to the side, because our user groups expected it to be fussy and not work well.

Henry the Hoover stands as an example of how simply putting a face on something can drastically change peoples feelings towards an object. Our face will do much more, but Henry proves that the market admires anthropomorphism.

The kindle is another example of technology which has been repeatedly mentioned in our discussions. More than just the e ink screen, too. Amazon's attempt to push the price of the kindle down by offering forced advertising added a new dimension to our core offering.

☺ INTERACTION

The group journal contains a page which was produced in order to shore up the feasibility of the proposed data system and to explain my perspective on the possibilities of learning software. Our product, in the interim presentation became the subject of many questions on the usability and practicality of the system. In response, we propose a learning system which grows with the user. It would help to speak to a video-game designer, as this field has great expertise in terms of giving people just enough over time to feed almost an addiction.
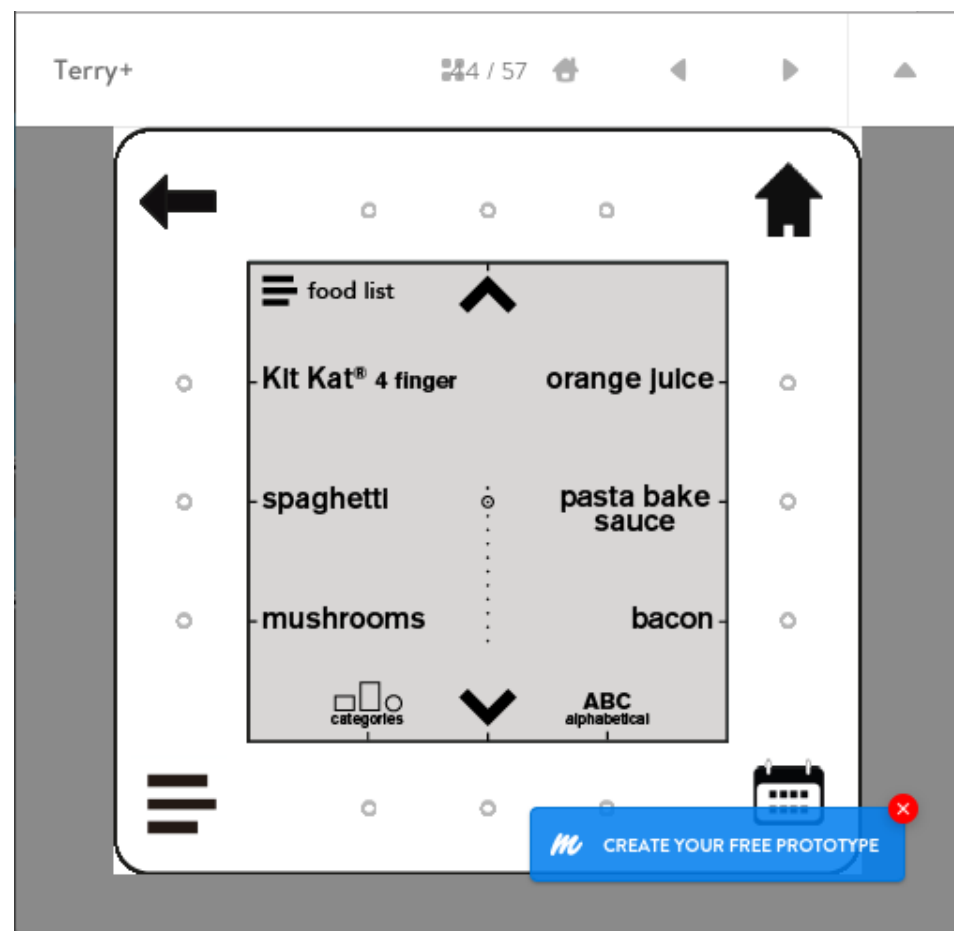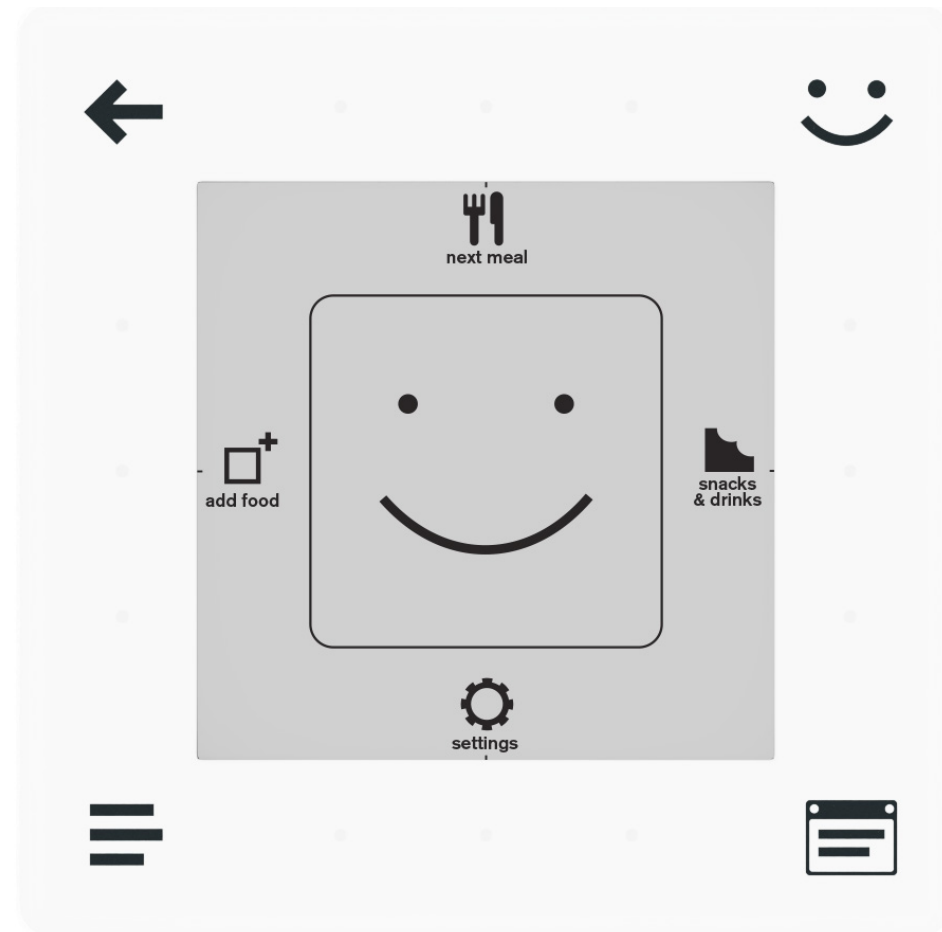
DEVICE

The device interface was developed jointly by me and Olly, with Jonny working on the Hardware side of things.

We first sketched the whole hierarchy or interaction on a rough piece of A4, before going through and defining the look of each screen. I developed a fair few pages on Illustrator, and tested them out on a borrowed kindle to test the look and feel of the graphics on an e ink display. Olly worked on marvelapp.com, a site mainly developed for prototyping apps, but he managed to get a very comprehensive prototype up and working. This was hugely beneficial in getting us to appreciate the way the interaction with the device actually felt.
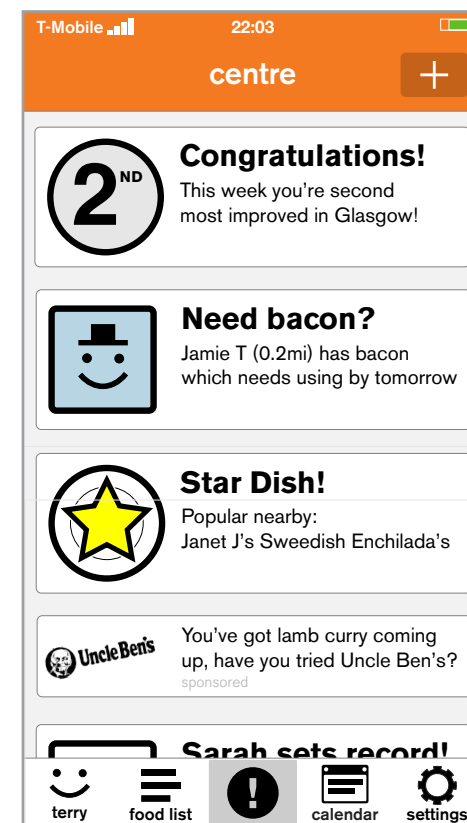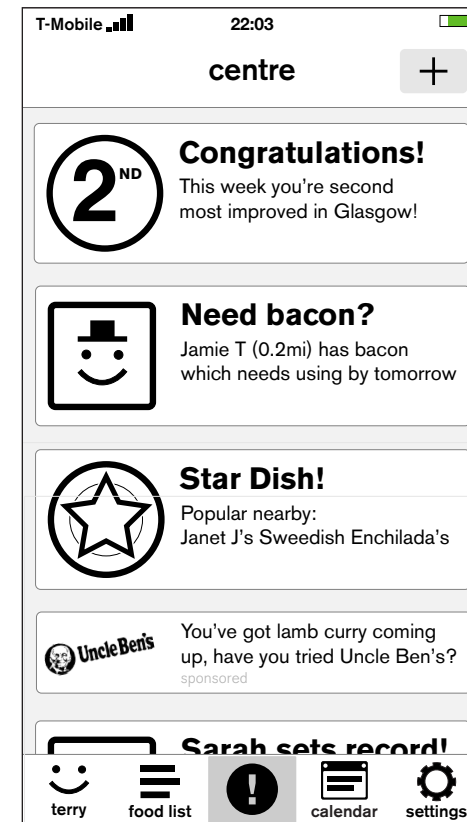
APP

I developed the app fairly independently, having already mocked it up once before. I built on the ideas of the last one, but removed colour from the final app, because the colour promoted an unfavorable comparison with the stark monochrome of the device.

I prototyped the app by sliding though screens on a secondary phone. The development didn't get past this stage, but it was helpful again to show team members and classmates the full 'working' prototype to gain context on the user interaction.

SUMMARY

'terry' is an Internet of Things system and device developed in response to the 'Waste Not Want Not' breif set by the RSA. The brief was to find a solution which would reduce the massive amount of food waste.

Our team worked together to first research the problem of food waste; finding that the home, and food not being used in time, was the single biggest source of food waste in the UK. In response we developed a device and system that would reduce food waste by providing an emotional warning system, combined with the ability to read receipts and plan meals.

The design process was a highly collaborative one, with the team going through several series of expansion and contraction while brainstorming potential ideas. Once the 'emotional device' concept had been settled on, the process then became one of rigorous technical and user research in order to deliver a highly thought out and readily marketable product.

The project taught me how to be highly collaborative, and how to both lead and be a key part of a creative team over a long project. Delegation of tasks and creative teamwork became essential in delivering a wide range of product features to a high level of definition.
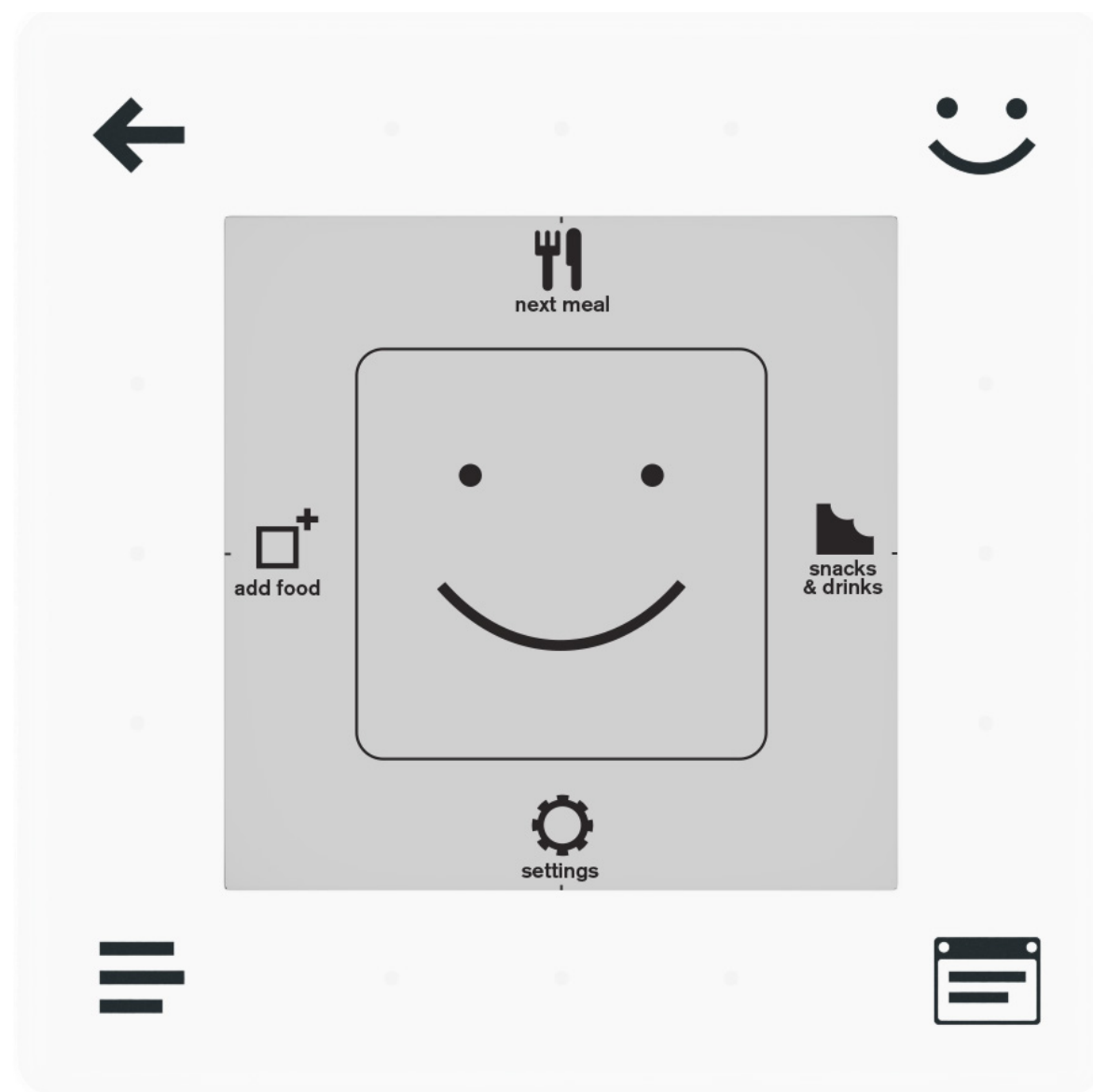
The device makes a wide range of features easily available - it's capacitive bezel providing a surface for navigation and keeping oily fingers off the screen.

Below - We had a highle energetic design process which began with an assessment of the food waste problem and the production of a whole range of solutions.

'Terry' was selected as a favourite solution on the basis that it focused on the main solution, food not being used on time in the home.

System thinking became an important part of the development process.

We produced a digital prototype in order to test the interface.

Tom Lever   Team Hot Dog   Waste Not, Want Not