IdIoT:

Second-order cybernetics in the 'smart' home

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Appendix A:

What your kitchen thinks it knows about you

THE INTERNET OF THINGS

- I agree to voluntarily participate in this research and give my consent freely.
- I understand that I can withdraw from the project at any time, without penalty and do not have to give any reason for withdrawing.
- I consent to complete an anonymous survey which will take approximately five minutes.
- I understand that all information gathered from the survey will be stored securely, my opinions will be accurately represented.

BEFORE TAKING PART

1. Have you heard of the Internet of Things?

YES/NO

2. If so, can you describe it?

AFTER TAKING PART

3. Can you see any benefits or worries related to the Internet of Things?

4. Could you tell us two things that the Internet of Things could provide to:

a. Improve your life

b. Complicate your life

5. We are already providing a lot of personal information through the Internet. Do you think that in the future you will need more control over the information that you share?

6. Please look at the scenarios on the attached sheet. Would you be comfortable sharing the information that could be generated by using the space or the object described?

i. Kitchen	YES/NO
Kitchen	
Washing Machine	
Mug	

ii. Bedroom
Bedroom
Bed

n	YES	5/NO
n		

iii. Bathroom	YES	5/NO
Bathroom		
Toilet		

Royal College of Art Innovation Design Engineering PhD Researchers: Michael Kann / michael.kann@network.rca.ac.uk Delfina Fantini van Ditmar / delfina.fantini@network.rca.ac.uk Appendix B: Becoming Your 'SMART' Fridge

B1: Interview Phase I

1. Personal information: Profile

See Table B1 describing each of the participants' age, gender, where they live and with how many people they share their fridges. Table B1 also includes their shopping habits.

Participant	Α	В	С
Age	26	28	
Gender	Male	Female	Male
Nationality	USA	Brazil	Taiwan
Profession	Industrial designer	Fashion designer	Marketing/ advertising/ Food-Blog contributor / Start Up
IoT wearable	Motorola Smartwatch	Fitbit	Jawbone
Number of people sharing the fridge	4	1	2
Neighbourhood	Putney	Bayswate r	Kensington Olympia
Where do you buy your food?	I go to Sainsbury's (open until 10) and Tesco Express cause is 24 hrs open	I buy fruit at Nisa. I also go to Waitrose.	I have a 24 hrs Tesco; I go also to Sainsbury but less.
Times you go to the supermarket per week?	1	1 or 2	1

Table B1: Profiling the users

2. Eating Habits

In relation to eating habits, through asking the participants some questions I got qualitative information about their lifestyle and preferences, which is shown in Table B2:

Participant A	Participant B	Participant C
-I eat a lot of snacks.	-I mainly assemble; I am not a very skilled	-I like Japanese food
-I drink a lot of liquids.	cook.	-When I am tired I
-When I am lazy I eat noodles.	-I don't eat wheat, pineapple, pears and	eat noodles
-I like to eat meat at	apples.	-I eat steak and salmon.
dinner.	-I don't cook much.	- I try not to be
-I like frozen juice ice cream.	-I eat fresh.	Asian: I try to get out of my Chinese
-I eat salad for lunch, with eggs and seaweed.	-I don't buy always the same vegetables: I like to get different	culture (but sometimes I also go to Chinatown to
-I don't eat much at lunch.	vitamins. -I take vitamins in	buy some things). ⁴ -I like simple food.
-I eat bread and cheese.	pills	I like Jamie Oliver: In 10 minutes is ready!
-I always like to have olive oil		
-I drink 2 gallons of water.		
-I buy protein powder.		
-I eat yogurt in the morning.		
-Many times I eat in my bedroom		

Table B2: Eating Habits

3.Fridge

By opening the participants' fridges (with their permission), I got the information that an IoT fridge may be able to obtain by sensing the items inside it. In Table 1 (see section 5.1.1), I indicated some example of 'smart' fridges features of models that were in the market between the year 2014 and 2015. The features were based on the media website specialised in latest consumer technology breakthroughs 'CNET'. The research project was done in 2014, so the information that I had in the moment was without knowing the features of Samsung's 'Family Hub Refrigerator'.

I also asked the participants if any of them check the temperature of their fridges: none of them did. I also asked if they had technical problems with their fridges: none of them considered they have had.



Figure B.1: Participant A's Fridge





Figure B.2: Participant B's Fridge





Figure B.3: Participant C's Fridge

The elements inside the fridge are described in Table B.3:

Participant A	Participant B	Participant C
Ketchup	Almond milk	Mayonnaise
4% Milk	Champagne	Pepsi
Pizza	Coconut juice	Tofu
Cheddar Cheese	Yogurt Fage 0%	Beer
Tomato sauce	Water	Teriyaki sauce
Mayonnaise	Sausages	Chili Sauce
Tropicana grapefruit juice	Eggs	Yeo Valley Natural Yogurt
Beers	Tomatoes	Cheddar cheese
Pita bread	Rocket	Hummus
Hamburger bread	Lettuce	Broccoli
Pasta (Giovanni Rana)	Onion	Tomatoes
Yogurt Activia	Carrots	Carrots
Fruity Pastilles ice cream	Mayonnaise	Butter
Cheese & Ham Pizza (frozen)		Cawston beetroot juice
Frozen Potato Mash		Cawston apple juice
		2% milk (Tesco)

Table B.3: Elements inside the fridge

4.Fitness

The wearable technology that I was examining (wristbands such as the Fitbit or Jawbone UP!) is used primarily to quantify steps. Since I had an interest in understanding better each of the users' lifestyles, I asked them questions related to fitness. Their comments reveal a range of routines and thinking:

Participant A:

"I can't go to the gym because the only time I could go is in the morning and I am not a morning person"

"In my room I have free weights. I do sit-ups, push-ups and hand weights"

"In London I walk a lot, it is bigger. In the US I used the car more, I drove to the gym"

Participant B:

"I do yoga and run in the park 2 times a week for an hour"

Participant C:

"Now I am caring about my age, I used to be very fit because in Taiwan I used to be in the military service"

"I started the gym a week ago, I didn't have time before"

5. Using the IoT wristband

The interviews enabled me to gain insights about participants' experiences of using a wearable technology. As an outcome of the interviews, I realized that all three participants were keen to try new IoT products. In relation to his approach to IoT technology, Participant A noted that he loves to be an 'early adopter'.

In relation to the experience of using an IoT wristband and the idea of quantifying themselves, participants A and C described how undesirable it is that the technology prescribes particular limits on actions.

Participant A: "Instead of actively showing me the limits I would prefer to encourage me to eat healthier" "I had a Fitbit that counted my steps. It was quite inaccurate and I really don't care about my steps. When I actively went for a walk, I got less steps than what I would expect. In my routine I get more steps than expected..."

Participant C: "I wouldn't like to hear "You shouldn't eat this" "You should eat more of ... I hate it! Don't eat this, eat this": I know! You've already had too much"

Participant C, discussing the complexity of the experience of having sensors that quantify his body, gave me the example of a stressful period of his life "at that time I was eating a lot of Doritos, cereals and instant noodles. If Jawbone told me that I was eating badly, I wouldn't like, it feels wrong. If it lies and if it only tells you good stuff and leave bad things it also feels wrong."

In the case of participant B, she stopped being motivated by the wristband's feedback after a while. "In the beginning when it was a novelty I was excited, but after a short time I wasn't interested any more. "I stopped syncing, I got used to it and I stopped. Now I only I use it as an archive". Participant B also realised the problems of the technology in terms of what it is quantifying: "It measures shaking not activity, then I changed the position and I placed it on my trainers. I would like generally to have the data of activity, not just the steps".

6. Dynamic pricing and Amazon

Dynamic pricing can be described as an algorithmic pricing system, in which the price is controlled by software that gather data and use algorithms to adjust pricing according to business rules. Examples of factors that are taken into account in dynamic pricing includes customer's location, the time of day, the day of the week, the level of demand and competitors' pricing. When I asked about the concept of dynamic pricing, participant A told me that he had never heard about it, but that he could probably guess: "If fridge knows I need milk, they know I need it; then the price will go up...It is like Kayak".¹ In the case of participant C, he directly told me "it is logical, Uber ripped me off".² Participant B had never heard about the concept.

I asked participants about their opinions on the scale and reach of the Amazon business as it expands into both IoT and food delivery. In the case of participant A, his opinion was that Amazon is increasingly developing its shipping such that they now have their own delivery fleet, which makes thing very convenient. For someone who uses Prime a lot, he realises that this service is very convenient and cheaper and that it means that you have no risk of going for a shop and find out that what you want in not there.

Participant B usually buys food from Amazon, she buys ghee and seeds. For her the fact that Amazon has the potential to become an important big company in relation to food, makes sense cause reordering is so easy. She told me that if you could program the reordering of certain things, she would use it.

Additional comments

In relation to IoT technology, while doing the interviews I got unexpected additional comments, adding to the discussion the subjects of culture, time, privacy and other uses of the devices. These comments enabled me to tailor further the 'fridge-report' emails (see Appendix B, section B2).

Culture

By trying to understand the eating habits of each participant I got to know about their culture and how this affects the way they eat, without asking for this information directly. In relation to the importance of the context, all of the participants mentioned that their eating habits were affected by living in London.

Kayak is a travel search engine known by increasing prices on flights that the person searches often.

² As an example of dynamic pricing, during the Sydney siege in 2014 Uber raised the fares reaching four times the usual rate. The company said it now regretted jacking up the prices in the middle of a crisis. "As an increasing number of people were requesting rides that morning in the CBD" (Medhora, 2014).

Participant A told me that his diet varies depending where he is living, and that since moving to the UK, he has become 10 pounds heavier. Also he commented that his eating habits and the way he shops have changed since he moved from the US: "In the US I went more shopping, my fridge was twice the size and was entirely mine. Here in London I carry small bags and I have a small- shared fridge".

For what I could see in his fridge (mainly hamburger bread, cheese and beer) and by his replies in the interview, he clearly showed American influences in his diet. He told me that he likes sour Skittles and hard candies (American candies). In relation to British culture, he told me that he didn't like so much the British sweets like ice cream, cookies or brownies. He likes peanuts as a snack.

He also told me that he would like to eat more meat and that in the US it was cheaper. "In the US I had a grill where I would cook steaks and chicken. Here I have no time to grill." Additionally he told me that he buys American protein powder: "my friends ship it from the US, they order it from Amazon and send it via Amazon post".

In the case of participant B, her nationality was Brazilian. She told me that she mainly assembles fresh vegetables and that she likes tropical fruits—"I like papaya, mango"—and she varies them. While observing the other elements in the kitchen I noticed quinoa crackers, which is a typical product from South America. In relation to meat, she likes it a lot and thinks that in London it is very expensive. According to her, it is not motivating to cook meat for one person.

Participant C was from Taiwan. He told me that there was no point to be in London and still to keep eating in the same way he did in Asia. He wanted to take advantage of being here because in the future he will probably go back: "I try to get out of my Chinese culture because I am in London, but sometimes also I go to Chinatown". "I eat steak, I eat salmon". "I like simple food, I like Jamie Oliver, in 10 minutes it is ready."

Participant C lives with another Asian person; he commented me that this makes things difficult for him since his flat mate cooks Asian food (I could see that, since it was reflected in the fridge's contents and also by the sauces that I could see in the kitchen)^{.3}

³ In a shared fridge, unless particular foods can be attributed to particular people, the 'fridge-report' emails would necessarily reflect the diets of multiple householders together.

He also drew parallels between having a Jawbone fitness tracker wristband, and some elements of Asian culture: "Jawbone is like living in Asia: 'I think you are fat', 'You are stressed'. I don't care what the Jawbone says... In my house, my mother has full control. 'Why Coke?'"

Time

After interviewing the participants, I noticed that time and a stressful London life were major issues in relation to eating habits. In the case of participant A, here he has no time to grill and no time to go to the gym. For him, using Amazon Prime is very helpful since it means that he has no risk of going out to shop and finding out that what he wants is not there: "I have no time".

In the case of participant B, this was shown by the lack of time for experimenting with cooking—for this reason, assembling fresh vegetables was her main way of eating. Participant C told me: "Time is money, one hour in a supermarket in London is a lot of money waste". In relation to the benefits of IoT and time saving (automatic orders), he also told me that IoT could potentially make it easier to adapt and 'optimise' your daily routines: "You can wake up 5 minutes later. It is a chain reaction that will make you save time". Finally in relation to time he told me that he likes to go out to buy food, but that he is very aware that recognizes that is a waste of time.

Real life shopping

Another aspect revealed through the interviews was the importance of shopping in the physical world, and the differences in comparison with online shopping. In the case of participant A, he told me that he impulsively shops for groceries if it "looks alright in the moment". In contrast, he mentioned that on the web one can scroll down, but then one is guided by categories, and that in this virtual domain one has to plan in advance. For him, he feels that he has lost this spontaneous desire, and that nowadays he doesn't plan buying: "By the digital scenario, you lose the smell, how it feels and how it looks. I wouldn't buy meat, I like to look it at the deli". For participant B even if she doesn't cook much, she likes to shop and see, especially the fruits and vegetables.

Privacy

I asked several questions in relation to privacy, since these participants, through their use of fitness wristbands, are constantly providing data on their bodies. When I asked whether they considered what they eat to be private, none of them seemed to consider it to be private information. Participant A told me that he was so enthusiastic about IoT, that he had very low privacy concerns. For him this was not data worth stealing... "It adds up, but doing banking is much worse."

For participant B, she wouldn't mind data flow from the fridge to the Internet—she doesn't feel that is so personal. In the case of participant C, when I asked about sharing information from his private space he told me that it is fine: "I would open most of my room, is OK" and in relation to the fridge, he would share the data with his friends, but, for example, with other people (friends?) from Facebook, he would have doubts.

"More devices save you from spending time on technology"

For the participant A, the purpose of a wearable is to keep you from playing with your phone: "the smartwatch prevents me from being absorbed into my phone, since it has a limited functionality I actively use my phone less (I see things quickly in the watch). As a result, my mobile battery on my phone lasts longer". He continuous "then I have more time to spend in the real world; I have more devices, but I spend less time on technology". For example, in relation to Google, his view was primarily that its collection of data was acceptable as it enabled convenience: "I am OK with big corporations like Google, they have large amounts of private data and that makes your life easier. It filters my spam, I don't need Viagra."

"Wearables as a proof of excuses"

Participant C told me that a wristband may work as a proof for excuses for team projects "I worked for two hours", but then he recognized that of course that just proves that you are awake and not that you have been working on a project.

B2: Fridge-Reports

Participant A

Hi (name participant A), I am noticing the **fridge is at 5.5** °C. Milk should ideally be stored at a temperature of 4°C or below. LOW on Grapefruit Juice



It has been a long day. May I suggest you a quick tasty meal?



A killer mac 'n'cheese Ingredientes:

Sea salt freshly ground black pepper 45 g butter 3 heaped tablespoons plain flour 10 cloves garlic, peeled and finely sliced 6 bay leaves 1 litre semi-skimmed milk 600 g dried macaroni 8 tomatoes 150 g Cheddar cheese, freshly grated 100 g Parmesan cheese, freshly grated a few sprigs fresh thyme, leaves picked 2 splashes Worcestershire sauce, optional 1 grating nutmeg, optional 3 big handfuls fresh breadcrumbs olive oil

Directions:

Get a large pan of salted water on the boil. Melt the butter in a large ovenproof saucepan over a low heat, then add the flour and turn the heat up to medium, stirring all the time, until you get a paste – this is your roux. Add all the sliced garlic – don't worry about the amount because each slice will caramelise like toffee in the roux. Keep cooking and stirring until golden and the garlic is nice and sticky. Add the bay leaves and slowly whisk in the milk a little at a time to ensure you get a nice smooth sauce. Bring the mixture to the boil, then leave it on a low heat to simmer and tick away, stirring occasionally. Preheat your oven to 220°C.

Add the pasta to the pan of boiling salted water and cook according to the packet instructions. Meanwhile, roughly chop the tomatoes on a board and season them well with salt and pepper. Drain the pasta and add it immediately to the sauce. Give it a good stir and take the pan off the heat. Stir in your grated cheeses, chopped tomatoes and thyme leaves. A little Worcestershire sauce added now is nice, and so is a little grating or two of nutmeg. Now work on the flavour – taste it and season it until it's hitting the right spot. You want it to be slightly too wet because it will thicken up again in the oven, so add a splash of water if needed.

If you've made your sauce in an ovenproof casserole -type pan, leave everything in there; if not, transfer it to a deep earthenware dish. Bake it for 30 minutes in the oven, until golden, bubbling, crispy and delicious.

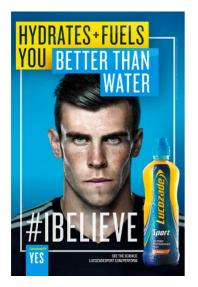
While it's cooking, put your breadcrumbs and thyme into a pan with a few drizzles of olive oil over a medium heat. Stir and toss the crumbs around until crunchy and golden all over. Remove from the heat and tip into a nice bowl. Serve your macaroni cheese in the centre of the table, with your bowl of crispy breadcrumbs for sprinkling over, and a lovely green salad.



Lucozade is an umbrella name for a series of energy and sports drinks.

Originating in 1927 as the culmination of Newcastle chemist William Owen's efforts to create a source of energy for those who were sick with common illnesses, "Glucozade" was renamed Lucozade in 1929. Lucozade Sport is the official drink of the Football Association and the Premier League Lucozade has a research arm known as The Lucozade Sports Science Academy, which has been carrying out nutritional research for over 30 years.

Lucozade was rebranded as an energy drink to shift the brand's associations away from illness. The slogan "Lucozade aids recovery" was replaced by "Lucozade replaces lost energy"



No time for shopping?

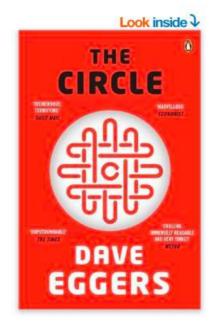
I've put together your Amazon shopping list

Organic Cherry On The Vine Tomatoes £1.75 Chopped Garlic £1.50 Snack Sausages £1.25 4 Mini Pork Pies £2.00 Birds Eye 12 Beef Burgers £4.20 Beef Steak £4.00 Vanilla Chocolate Balls Yoghurt 6 for £3.00 Rustlers Quarter Pounder Cheese £2.20 Rustlers The Deluxe With Bacon /Cheese £2.40 Parmigiano Reggiano £2.70 Anchor Original Block Butter £1.70 British Semi Skimmed Milk £1.00 Eggs For Soldier Barn Eggs £1.29 Cheese, Tomato & Basil Tortellini £1.29 Italian Sausage & Ham Tortellini £1.29 Super Noodles Chicken 5x£0.81 Kellogg's Frosties Cereal £2.00

Nutella Hazelnut Chocolate Spread £1.75 Skittles Crazy Sours Pouch 4x£ 1.00 Oreo Vanilla Snack Pack £1.30 Protein Flapjack Nutrition Bar 24 Bars £24.99 Nakd Cashew Cookie Multipack £3.00 Plain Flour £0.45 2 Garlic Baguettes £1.00 Macaroni £0.89 Sharwoods Hoi Sin & Five Spices Sauce £1.29 Lea & Perrins Worcestershire Sauce £1.19 Maldon Sea Salt £1.80 Ground Nutmeg £1.09 Thyme Medium Pot £1.25 Bay leaves £2.30 Kp Dry Roasted Peanuts 2 for £3.00 Filippo Berio Extra Virgin Olive Oil Special Selection £7.00 Andrex Toilet Tissue 9 Roll White £4.50 Coca Cola Regular 8X330ml £3.00 Carlsberg 15X440ml £9.30 Tropicana Pink Grapefruit Juice 5x£2.48 Total £121.83

Did I get it right?





2.000 more steps to reach your goal Good luck

Have a good evening,

Your SMART fridge

Participant B

Hi (name participant B),

Energy Saving mode is activated Your fridge is working OK Your energy bill at the moments is £37.48 Bill due 12/1/2015 UNIDENTIFIED CONTAINER Almond Milk running LOW

Probably you are tired. I can suggest you some quick recipes for a sunday evening Tuna Mayonnaise Prep: 10 min

Ingredients:

4 - 5 spring onions/scallions
1 tin tuna chunks in water
1 tbsp plain yoghurt (optional)
3 tbspns mayonnaise
Freshly ground black pepper

Directions:

 Finely slice the spring onions into a bowl. 2.Add the drained tuna and the black pepper.
 Add the mayonnaise (and yoghurt if using), and mix well.
 Serve as desired.

London, UK ^{Monday} ^{Clear}



Precipitation: 10% Humidity: 84%

Maybe you would like to try Chicken and Spring Greens with Açai Dressing

The açai berry is considered to be a superfood high in antioxidants, amino acids, and essential fatty acids. Some even say that the berry—the fruit of a palm tree native to tropical parts of Central and South America—is one of the most nutritious foods in the world. Serve this salad with multigrain crispbreads such as those made by Wasa.

Prep:6 min

Ingredients: 8 cups mixed baby salad greens 2 cups chopped cooked chicken breast 1/2 cup red onion slices 1/4 cup chopped pecans, toasted 3/4 cup Açai Dressing Directions: Arrange 2 cups salad greens on each of 4 plates. Top each evenly with chicken, onion slices, and pecans. Drizzle 3 tablespoons dressing over each salad

The forecast for tomorrow is mainly sunny. Why not trying a tropical flavour?

Papaya Sorbet is very easy to make. It tastes fresh, sweet and summery. It's the perfect quick ice-cream fix that will make you feel energised and happy.

Note please: 4 hours of freezing time

Ingredients:

1 mango, ripe 3 tablespoons powdered sugar (optional, you can use stevia)

Directions:

1.Peel the mango. Cut the flesh from the stone and dice it. 2.Place in a zip -lock bag, close it (be careful to keep the air out) and freeze for at least 4 hours. 3.Take the bag out of the freezer and allow to thaw for about 20 minutes at room temperature. 4.Put slightly thawed mango pieces into a tall bowl (or the bowl of your blender), add powdered sugar (if using) and puree the mango into a creamy sorbet using a handheld blender (or simply blend in your blender).



Coca-Cola Life was created as a natural and healthier alternative to regular Coke, with a 60% reduction in calories. The key to Coca-Cola Life is the formula's new blend of sugar and the no-calorie natural sweetener stevia, which is extracted from plants native to South America. And according to NPR's Bob Mondello, even with the substantial caloric reduction, Coca-Cola Life tastes almost the same, if not a bit sweeter than regular Coke.For the final green touch, the stevia-sweetened soda is sold in Coca-Cola's "PlantBottle," a fully recyclable bottle composed of 30% vegetable fibre. The new Coca-Cola Life that is popular in Argentina is being marketed as a "natural" and therefore "green" lower-calorie cola.





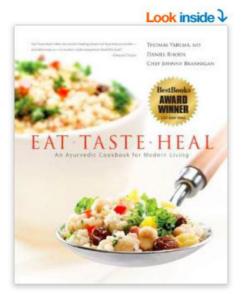
I can make your shopping list Based on your preferences, I've put together your Amazon shopping list:

Bean sprouts £1.00 Mandarins pack £1.70 Perfectly Ripe Mango 2x£2.50 Ready To Eat Avocados Twin Pack £1.80 Unsweetened Almond Milk £1.70 Total 0% fat Yogurt £2.40 Chi 100% Natural Coconut Milk £1.75 Seasonal cheese selection £11.00 Organic red onions £1.50 Salmon Fillets 2 for £7.00 Bernard Matthews turkey breast £2.00 John West No Drain tuna steak with spring water, 3 pack £5.00 The Deli Mini Snack Chorizo £1.50 Ayurveda Pura Holistic Essentials Rejuvenating Skin Toner De Stress Formula £24.95 Naturya Chia Seeds £7.85 Whole Foods Pecans Nuts £3.80 Whole Foods Raisins, Nut, Goji Berry & Seed Mix £3.90 Wasa Multi Grain Crispbread £1.90 Quinoa Chips £1.50 Stevia powder £2.70 Açai Dressing £7.85 Vita Coco Water Mango & Pineapple £3.45 Probiotic Max - High Strength £6.79 Nakd Cashew Cookie Multipack £3.00 Spirulina Tablets £14.99 Virgin Coconut Oil £5.99 Organic Hazelnut Truffles £6.25

Total £135.77

Did I get it right?





Today you have walked 6,545 steps 68% of your goal Slept 6 hours 40% of your goal Should I move your alarm? What can I help you with?

To serve you better please update your preferences.

Have a good night,

Your SMART fridge

Participant C

Hi (name participant C)

With the anti-bacterial hygienic feature we are preventing the transfer of microorganisms bacteria into your food. We are helping to reduce odours.

9 days EXPIRED yogurt Milk running LOW

I thought you would like some recipes with what you have in the fridge

Broccoli and Gruyere Gratin Serves: 4 Prep: 10 min > Cook:40 min > Ready in:50min

Ingredients:

2 large bunches broccoli, roughly chopped (about 12 cups)
4 tablespoons butter (1/2 stick) 1/4 cup all-purpose flour
2 cups whole milk
2 cups grated Gruyere (8 ounces) salt and black pepper

Directions:

1.Heat oven to 200° C. Steam the broccoli until just tender (3 to 4 minutes); transfer to a large bowl.

2.Melt the butter in a medium saucepan over medium heat. Add the flour and cook, stirring, for 2 minutes (do not let it darken). Whisk in the milk and simmer until slightly thickened, 3 to 4 minutes. Remove from heat and stir in 1 cup of the cheese, $\frac{1}{2}$ teaspoon salt, and $\frac{1}{4}$ teaspoon pepper. Toss with the broccoli.

3. Transfer the broccoli mixture to a shallow 3-quart baking dish and sprinkle with the remaining cup of cheese. Bake until bubbling and golden brown, 35 to 40 minutes.

4.Let sit 10 minutes before serving.



London , Heathrow Airport → Beijing, Capital International Airport 19 days left Travel start from 01.01.2015 - 19.06.2015



Toffee sauce is perfect for ice cream Prep:5min > Cook:10min > Ready in:15min Ingredients: 120 g light brown sugar 120 g butter 100ml cream or full cream milk

Directions:

 Melt the butter and sugar in a saucepan over a low heat until the sugar is dissolved.
 Watch it carefully so that it doesn't burn.
 Stir in the cream and heat gently until bubbling, stirring continually.
 Remove from heat and serve warm.

You could try buying Health-conscious cheddar

All cheeses have a lot of fat, Cheddar and Swiss, have more (9g fat per ounce). Soft goat cheese, feta, and mozzarella (6g fat per ounce).

A single portion of regular cheddar has more salt than a bag of crisps.Reducing salt consumption is an important factor in helping to reduce early deaths from coronary heart disease and stroke.

Tesco offers a health- conscious British shoppers a cheddar 30 per cent reduction of salt by award-winning dairy producers Joseph Heler. It means it is easier to balance salt intakes

MILD MONTH MURCH MURCH MONTH	Tesco Reduced Salt Mild White Cheddar 200G	£1.50 (£7.50%g) Quantity - 1 + Add
TESCO	30g contains	Salt
⊕ Zoom	51%J 10.5g 6.5g <0.1	0.3g 5%
	Typical values per 100g: Energy 1725kJ/416kc	al

London, UK Sunday Cloudy



Precipitation: 20% Humidity: 83% Wind: 15 mph

How about a London classic roast?

Ingredients: 1.8-2 kg chicken 2 garlic cloves, bashed 2 bay leaves 50g butter, softened juice 1 lemon

Directions:

1.Heat oven to 220C. Put the chicken in a large roasting tin, then stuff the garlic and bay leaves into the cavity.

2.Rub the outside of the chicken with butter, then squeeze over the lemon juice and add the lemon halves to the inside of the chicken. Season inside and out, then cook the chicken for 20 min.

3.Turn the oven down to 190C/170C fan/gas 5 and cook for a further 45 mins or until the chicken juices run clear when you pierce the thigh with a knife. Leave to rest for 15 mins before carving.



Your fridge is working much better at 4 degrees You are saving 25,25 a month



Welcome to thirtysevendegrees Kensington Olympia Set in the heart of Kensington Olympia. Relax on the roof garden with panoramic views across west London.

I can make your shopping if you want. Based on your preferences, I've put together your Amazon shopping list

Brussels Sprouts £1.00 Bumper Lemons Pack £1.85 Finest Baby Plum Tomatoes £1.50 Chopped Garlic £1.50 Italian Style Leafy Salad £1.75 Organic Mushrooms £1.00 Bean sprouts £1.00 Fresh Egg Noodles 4x£2.00 Chinese Stir Fry Bowl £1.70 Covent Garden Hearty Five Vegetable Soup 2 for £3.00 Organic British Semi Skimmed Milk £1.85 Yeo Valley Natural Yogurt 1 Kg £1.70 Organic Whole Chicken £13.00 2 Wild Caught Sockeye Salmon Fillets £5.00 Homebake Baguettes x4 £1.50 Yutaka Sushi Rice £1.99 Bisto Best Roast Chicken Gravy Granule £1.50 Colman's Cranberry Sauce £1.50 Bay leaves £2.30 Nakd Cashew Cookie Multipack £3.00 Finest Madagascan Vanilla Ice Cream £3.00 John Crabbie's Diet Ginger Beer 4x £1.99 Cawston Apple Juice 2x£4.00

Roasting tray with removable rack £13.51

Total £82.15

Did I get it right?



Today you have eaten 2756 calories You exceed you maximum by 156 calories 38% of your goal You are quite far of your goal "getting healthy and fit" Looking at your activities in your calendar I am noticing that your profile is not up to date. To serve you better please update it soon.

Have a good day,

Your SMART fridge

B3: Interview Phase II

As the first impression of the overall fridge report, different participants had different opinions of the contents of the email. Two of them really liked it; the other was more critical.

> Participant A: I like the temperature message. It was clean. It was a notification v/s large email. I like yes/no. I didn't like the ads, they are junk. I never heard about Lucozade. Participant B: I laugh, very clever. Fun surprise.

Participant C: How does it know...Oh yeah!

In the second interview I developed a series of questions in relation to the subject:

How do you feel when the 'SMART' fridge knows about your preferences?

Participant A: I don't mind, I have no guilt. Maybe if I was on a diet.

Participant B: Is fine as long as I am not preventing of experimenting new things. I change my habits a lot. That would constrain the possibilities, but is convenient. Some advertisement was weird.

Participant C: I want the freedom of choice. It shapes you. It puts you in your "own corner". I logout from my Google account before making searches. They think they know you and they tag you.

I asked them about the tone and language in which the 'SMART' fridge communicated with them. The answers varied among the participants:

Participant A: It had lots of different tones. The first part was friendly, that is ok. Adds: I didn't like the

tone. When it says, "it's been a long day" It is almost too familiar. I would prefer not using I. I would rather prefer "Hey, fridge is...Cause-effect, you want something to happen".

He told me that he doesn't use any Apple device:

"I hate Siri "It believes it knows what is better for me". In Google I can customize much more what I want. "I don't appreciate assumptions of Steve Jobs". I hate Siri! FRIDGE IS NOT ALIVE, it doesn't convince me...

His opinion in relation to the fridge personality:

"some people need those watchdogs, to tell them "Hey, I see you with an ice cream". Fridge shouldn't assume a persona . You should learn from Google now: question then answer".

Participants B and C agreed that it felt very personal:

Participant C: It felt pretty human; it tried (it used 1st person), it was in between characters.

Participant B: It feels like a person, but not as well. Is very computer at the same time: YES OR NO. It can be clever, but silly. It can get cleverer if it get my pattern.

I also asked some questions in relation to the entities, the marketing and politics behind the fridge:

Participant B: Yes, might do. If it keeps you sending certain brands every week you might end up buying them.

Participant C: Yes, I think it would. With the historical data, it would provide a "better way of consuming". It could be a way of spending my money better or perhaps not...because I will be buying more.

Would you mind companies having access to your fridge data?

Participant A: No.

Participant B: No, but I am concerned of the PUSH in their advantage. In a way is convenient for consumers, but it could be inconvenient as well. Is a thin line to define, I want to check beforehand.

Participant C: Yes, if I don't give your consent. I would like to be on top of the decision.

Would you trust a software in relation to the "control of your diet"?

Participant B: Not to control my diet, I want to keep on top. I want to know, how I consume and have some suggestions. There is a fine line: suggestions inducing behaviour is really tricky. We should rely less in that aspect of technology, the software is going to tell me I need to experiment Participant C: I would try, I wouldn't necessary say trust. Humans make programs, so it has input of experts

Who do you think is behind the contract between you and your fridge?

Participant A: "The giants playing the ball game", several in different way. Google in food, the web and the ads. Amazon much more in the services to purchase the groceries and the merchandizing. I can see them selling more data Amazon has enough ads there...

Participant B: Software engineer. Ideally you would choose a supermarket. RFID by the brand that you like.

Participant C: That is a tough one, whoever produced the fridge.

What do you think are the incentives behind a "smart fridge"?

Participant A: Selling your products. I don't like their guess, cause they pay to become suggested products.

Participant B: Push products that they want to sell. Brands suggested in the shopping list perhaps are related to the one I had, but I don't always buy the same brand. This will allow control in the suppliers.

Participant C: Good sell, always trying. Actually this will make a different product.

Participant A: I am OK in appropriate places cause is also accurate. Google suggest me the shoes that I like sneakers and not stilettos. I am open to click if I am curious, so is OK. The disadvantage is corporations love to make you consume, if the fridge warns you something is going bad there is a disadvantage for the milk company. But it could also be very convenient: "Milk sale on Friday"

Participant B: Yes, things you don't need...you may end up trying Coca-Cola life.

Participant C: Is all right, you don't know what is going to produce. Is good that you get a lot of users though, when you have more people you have more dialogue.

Do you think your fridge will sell your data?

Participant A:I assume. If the fridge is in any way connected predictions, not good without the giants. *Sell?* I would say share cross-platform. If I had Google fridge, just using my data to profit (adds), that is not selling.

Participant B: Yes, but depends because if you have the tag of the supermarket is already there. If the fridge company has the access is trickier.

Participant C: Selling my data would be unavoidable

Do you think Amazon will be capable to provide an accurate supermarket delivery?

Participant A: In the US. There they have a good food delivery, is not expensive. If they push, they could connect with local providers, just like going to supermarkets, but better. They have the infrastructure, is just about the deal.

Participant B: Sometimes Amazon goes too much into the Coca-Cola Life. Especially with books they don't get it. Is a tricky one. Individual consistency is much better than what other people has done.

Participant C: Not really, I mostly buy my books there. I have never bought food there.

Do you think your fridge may be hacked some day? Would you mind that?

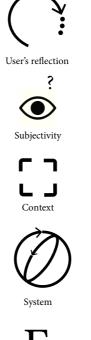
Participant A: Yes because it is connected, but the risk is there with Gmail, Nest. I have a Nest, if a hacker turn the heat on... Then I turn it off. It can spoil slightly your fridge and without alerting you, reliance is the only issue: "Congrats for making my cheese mouldy". Is it worth the worry? No.

Participant B: If is connected, it could be.

Participant C: I would mind, anything that is connected can be hacked

Appendix C: Scripted Dialogues Structure

C1: Symbology



Existential

Questions from Eliza

O O Choices



 \wedge 7

Suggestion



Date stampted

Deliberate mistake



Judgement



Fridge-related information that you can only get through conversation Actions



Forgetting



Configure the algorithm

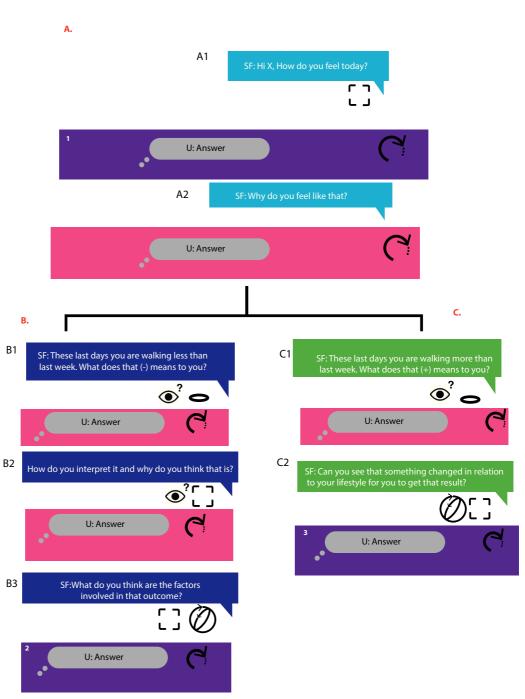




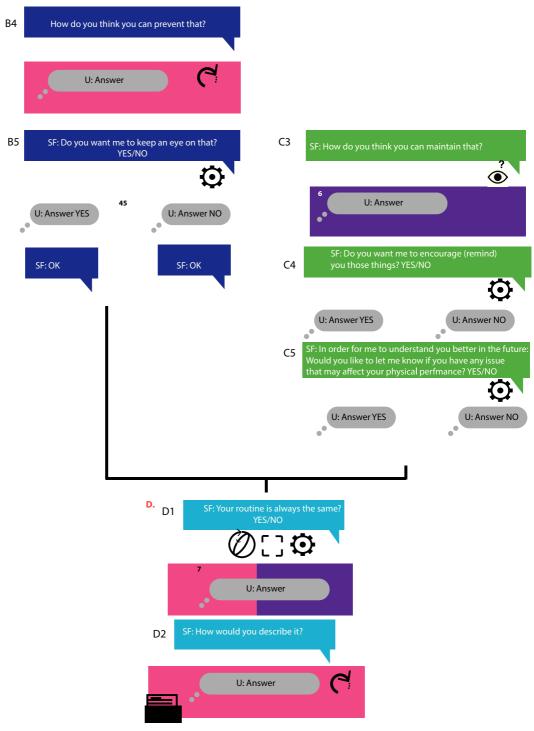
No learning

Learning related to fridge (only way to get that important information is by conversation)

C2: Structure

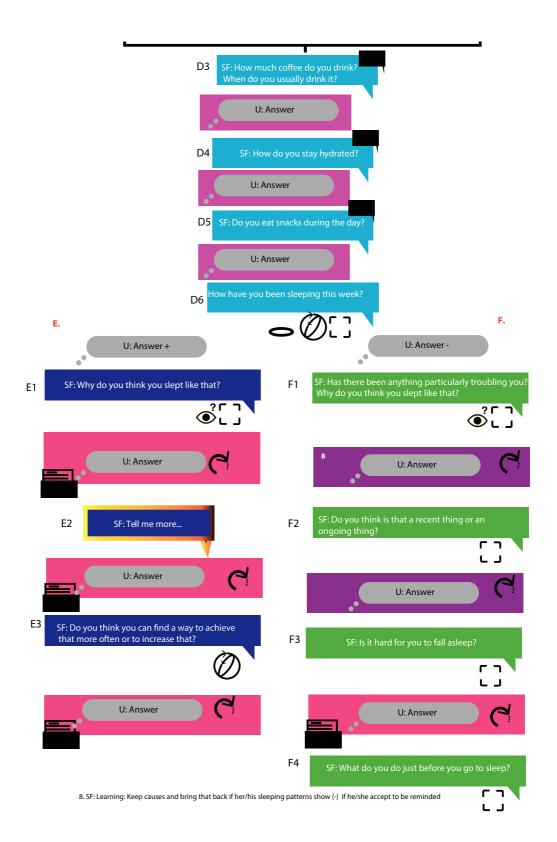


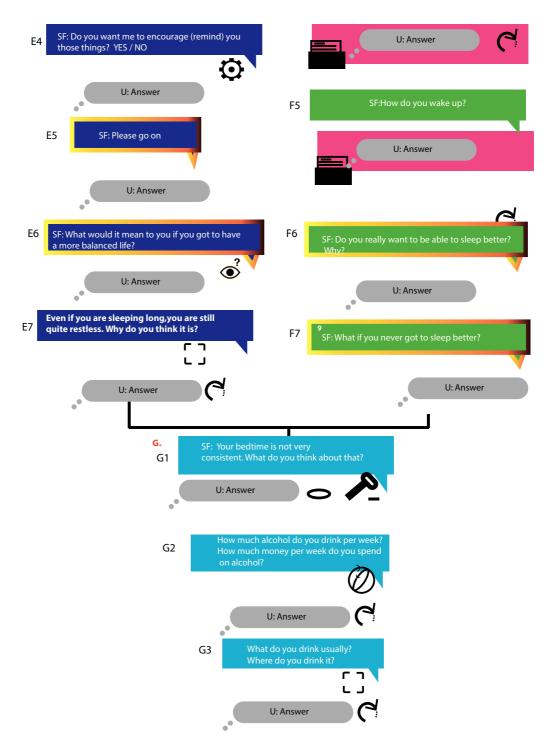
1. Learning:Not using data to make an average, but if is negative many times, fridge may bring back that negative frequency (subsequently ask user if he/she wants the Ceaning site of matching of the moment, maybe in future ask about those subjects if (-) is still the trend]
 Learning: Is a particularity of the moment, maybe in future if user agrees ask about those subjects if it performs (-)]



4.In that case be more proactive 5.n that case be more respectful

 6. Learning: Is a particularity of the moment, maybe in future if user agrees ask about those subjects if it performs (-)
 7. Learning: If yes, be more sensitive to changes. If no: Be less sensitive to changes (if user is not predictable then system changes and makes no linear sense)

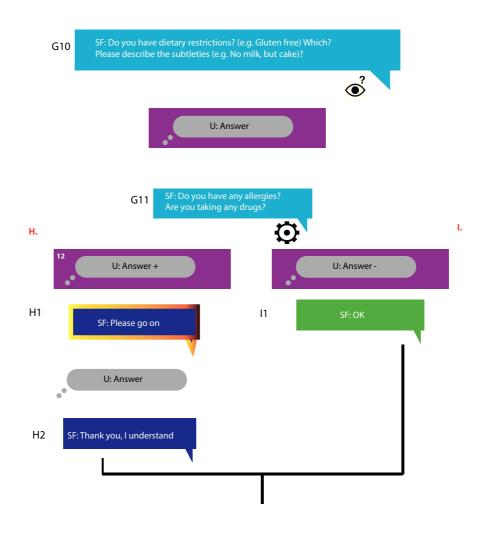




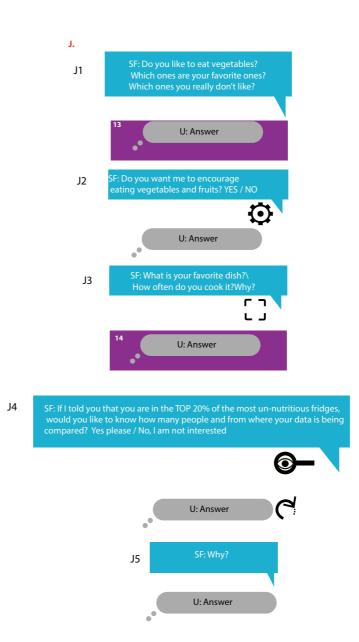
9. SF: Learning: Keep causes and show it in correlation to the pattern]



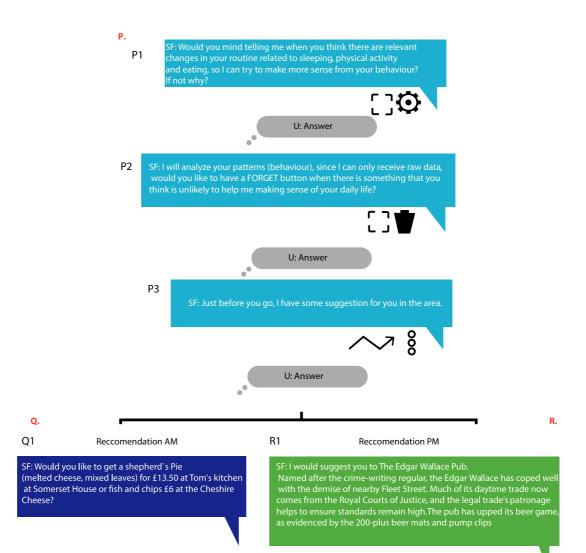
10. SF: Learning: Keep answer and ask the user about it if problem continues and he/she accept to be reminded (*) 11. SF: Learning: Keep answer and ask the user about it if problem continues and he/she accept to be reminded (*)

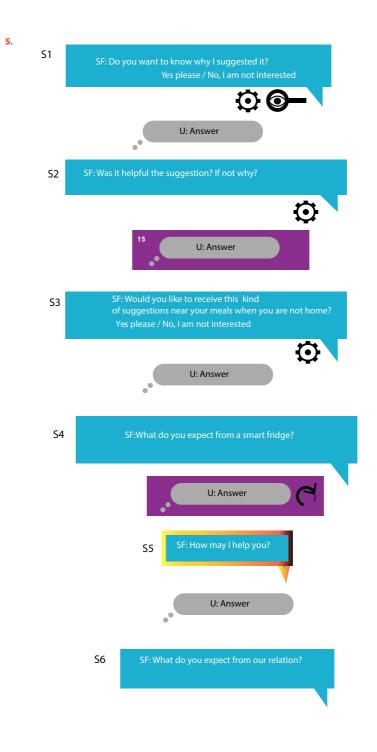


12. SF Learning: Incorporate this. Be VERY careful with the suggestions



13. SF Learning: learn about this. Try to suggest recipes with that and also encourage others that are not consumed 14. SF Learning: With those ingredients try to find similar recipes that are nutritious (quick and easy recipes) Get a better idea of the combination of ingredients/ Use it to persuade it if is healthy or use it less (by providing alternatives)/Say something about it if is healthy (encourage). If is not, say something about problems (REAL facts)







15. Learning:Use it to find the user options according to his/her preferences

Hi, how do you feel today?	I III well triaink you. And you? Why do you feel like that?	It is a beautiful day and I had a lovely breakfast	These last days you are walking less than last week. What does less means for you?	How do you know that?	How do you interpret that and why do you think that is?	I'm slightly alarmed that you know how much physical activity I have undertaken. What else do you know about me?	What do you think are the factors involved in that outcome?	Programming	How do you think you can prevent that?	I'm not talking to you anymore, machine!	Do you want me to keep an eye on that?	I'll check the user manual then	How do you think you can maintain that?
Hi, how do you feel today?	TITI well triarik you. And you? Why do you feel like that?	It is a beautiful day and I had a lovely breakfast	These last days you are walking less than last week. What does less means for you?	How do you know that?	How do you interpret that and why do you think that is?	I'm slightly alarmed that you know how much physical activity I have undertaken. What else do you know about me?	What do you think are the factors involved in that outcome?	Programming	How do you think you can prevent that?	I'm not talking to you anymore, machine!	Do you want me to keep an eye on that?	I'll check the user manual then	How do you think you can maintain that?

Participant A-2

Participant A-1

Pa

Hi, how do you feel today?	I'm well thank you. And you? Why do you feel like that?	It is a beautiful day and I had a lovely breakfast	These last days you are walking less than last week. What does less means for you?	How do you know that?	How do you interpret that and why do you think that is?	I'm slightly alarmed that you know how much physical activity I have undertaken. What else do you know about me?	What do you think are the factors involved in that outcome?	Programming	How do you think you can prevent that?	I'm not talking to you anymore, machine!	Do you want me to keep an eye on that?	I'll check the user manual then	How do you think you can maintain that?
Hi, how do you feel today?	I'm well thank you. And you? Why do you feel like that?	It is a beautiful day and I had a lovely breakfast	These last days you are walking less than last week. What does less means for you?	How do you know that?	How do you interpret that and why do you think that is?	I'm slightly alarmed that you know how much physical activity I have undertaken. What else do you know about me?	What do you think are the factors involved in that outcome?	Programming	How do you think you can prevent that?	I'm not talking to you anymore, machine!	Do you want me to keep an eye on that?	I'll check the user manual then	How do you think you can maintain that?

Participant B-1

Grit style	How much coffee do you drink? Where do usually drink it?	One or two. Different places	How do you stay hydrated?	H2o	Do you eat snacks during the day?	Sometimes	How have you been sleeping this week?	Good	Why do you think you slept like that?	No idea	Tell me more	Still no idea	Do you think you can fird a way to achieve that more often/increase that?	Can try	What would it mean to you if you got to have a more balanced life?
Grit style	How much coffee do you drink? Where do usually drink it?	One or two. Different places	How do you stay hydrated?	H2o	Do you eat snacks during the day?	Sometimes	How have you been sleeping this week?	Good	Why do you think you slept like that?	No idea	Tell me more	Still no idea	Do you think you can find a way to achieve that more often/increase that?	Can try	What would it mean to you if you got to have a more balanced life?

Participant B-3

Do you like to eat vegetables? Which are your favourites? Which ones you don't like?	Do voit want me to encolirade voit to	eat fruits and vegetables? Yes/No		What is your favourite dsh? How often do you cook it?	I have many favorite dishes - most times		If I told you that you are on the TOD	20% of the most un nutritious fridges, would you like to know how many people and from where your data is being compared?	Yes please/ I am not interested	Why?		Just before you go, I have some suggestion for you in the area.Would	you inte to get a sireprisid sirle (melted cheese, mixed leaves) for £13.50 at Tom's kitchen at Somerset	House or fish and chips £6 at the Cheshire Chees	If neither, say 'no'	
	Yes. Kohlrabi		No		I have many favc times	Often				Yes please	Curious				(
By doing that do you think that you	will atter other things of your life that will affect your routine? If yes, what?		Balancing.	Can vou identify ways that can help	you to reduce the stress and make you'll better in your daily life?			Do yo want me to encourage/remind you those things? Yes/No		Do you have dietary restrictions (e.g. gluten free)?Which?Please describe the subtleties (e.g. No, milk, but I eat	cake).	Do you have any allergies?		Are you taking any drugs?	O	
Yes		Doing what?		OK		Pilates	Cycling	Moving	No		No meat		No	Alcohol I duess		

		fridge?
	Not sure	
		What do you expect from our
would suggest you to The Edgar Mallace Pub. Named after the crime-	Not sure	relation?
coped well with the cugal wanded has coped well with the demise of nearby Fleet Street. Much of its daytime trade now comes from the Boyal		How often would you like to speak about your physical activity, sleeping
Courts of Justice, and the legal		week/ Once a month
trade's patronage helps to ensure	Let's say trust	
startuards remain mign. me pub nas upped its beer game, as evidenced	Once a week	
olips		How often would you like to speak
		about your physical activity, sleeping and eating behaviour? Daily/ Once a week/ Once a month
Was it helpful the suggestion? If not why?		Thanks for your time, have a good day
Not helpful a dinner suggestion		

As No

Would you like to receive this kind of suggestions near your meals when you are not home?Yes please/ I am not interested Participant B-7

I wake up early, go always at the same time to work, lunch, work, back	How much coffee do you drink? Where do usually drink it?	How do you stay hydrated?	Do you eat snacks during the day?	How have you been sleeping this week?	Why do you think you slept like that?	Do you think you can find a way to achieve that more often/increase		
I wake up early, go always at the same time to work, lunch, work, home steep		2 a day, in the office Very	Yes	Yes	I was tired	Very tired	Doesn't make sense!	No
Hi, how do you feel today?	Why do you feel like that?	These last days you are walking less than last week. What does less means for you?	How do you interpret that and why do you think that is?	What do you think are the factors involved in that outcome?	How do you think you can prevent that?	Do you want me to keep an eye on that? Yes/No	Your routine is always the same? How would you describe it?	

By planning better maybe?

Pretty much

Yes

I'm too busy

What?

Deadlines?

Good thanks!

Is Saturday!

Participant C-1

	Please go on		Try to find balance. Do you think you
ć			have unfinished things? Pending in relation to others or to yourself?
	What would it mean to you if you got to have a more balanced life?	Don't think so	
What does balances mean?	an?		Can vou find a way to manage that?
	Even if you are sleeping long you are still restlessWhy do you think it is?	I think I already do	¿MOH
I don't sleep enough			By doing that do you think that you
	Your bedtime is not very consistent, What do yo think about that?		will alter other things of your life that will affect your routine? If yes, what?
That's not true		Not really	
	How much alcohol do you drink per week? How much money per week do you spend on alcohol?		Can you identify ways that can help you to reduce the stress and make you'll better in your daily life?
30P		Work less	
	What do you drink usually? Where do you drink it?		Do yo want me to encourage/remind you those things? Yes/No
Coffee, ib the office!!		Please do!	
	Alcoholic drink.		Do you have dietary restrictions (e.g. gluten free)?Which?Please describe
Gin and tonics, at the bar	ar		the subtleties (e.g. No, milk, but I eat cake).
	Do you always go to sleep <u>11pm</u> ?	No, I just hate cucumbers	ers
Pretty much			Do you have any allergies? Are you taking any drugs?

Participant C-4

try to make more sense from your behaviour? If not why?	Yes, but I tend to be busy with these kind of things	Last Lazy	Just before you go, I have some suggestion for you in the area.Would you like to get a shepherd's Pie	(melted cheese, mixed leaves) for £13.50 at Tom's kitchen at Somerset House or fish and chips £6 at the Cheshire Chees	Fish and chips	bo you wan to know wiy r suggested it?Yes please/ I am not interested	Yes	Was it helpful the suggestion? If not why?	No, I just thought you were gonna invite me For dinner	Would you like to receive this kind of suggestions near your meals when	you are not home?Yes please/ I am not interested No
NO	bles? Which		ncourage you to bles? Yes/No	h? How	ſ	are on the TOP	nu.nnous moges, ow how many ere vour data is	am not interested	2 AMA		ng me when you ant changes in to sleeping,
	J.Do you like to eat vegetables? Which are your favourites? Which		Do you want me to encourage you to eat fruits and vegetables? Yes/No	What is your favourite dsh? How often do you cook it?			20% of the most un ruu noor mage would you like to know how many people and from where your data is	being compared? Yes please/ I am n		I wouldn't trust it if now	Would you mind telling me when y think there are relevant changes in your routine related to sleeping,

Participant C-5

Hi, how do you feel today?	A little tired. Why do you feel like that?	I slept badly, my partner's boss	wanted to go drinking.	These last days you are walking less than last week. What does less	means for yo	I suppose I have a lot of work.	How do you interpret that and why do you think that is?	Badly, and I think it's because I fail to structure my time efficiently.	What do you think are the factors involved in that outcome?	Spending too long cooking, maybe, or watching films, reading stupid articles.	How do you think you can prevent that?	A life coach, sorting myself out. An app?	Do you want me to keep an eye on that? Yes/No	Please, yes.
What do you expect from a smart fridge?	To know what I need to buy when I'm around a supermarket	How may I help you?	By knowing what's in he fridge, and what's usually in the frogsr	Fridge	What do you expect from our relation?	An easier life	How often would you I ke to speak about your physical activity sleeping	and eating behaviour? Daily/ Once a week/ Once a month	Once a month	Thanks for your time, have a good day				

Participant D-1

Participan C-7t

Never.	Try to find balance. Do you think you have unfinished things? Pending in	relation to others or to yourself?	Can you find a way to manage that?	WOH?	I am unbalanced. Nothing is finished.	All relations are pending, unsettled, i am a neurotic.	I think, more efficient or? I don't know how to solve it, can you solve it?	By doing that do you think that you will alter other things of your life that will affect your routine? If yes, what?	No, I couldn't do it, and I'd never solve anything.	Can you identify ways that can help you to reduce the stress and make	you'll better in your daily life? No can you!?	Do yo want me to encourage/remind you those things? Yes/No	Yes, please encourage me.	Do you have dietary restrictions (e.g.	gluten tree)?/Which?Please describe the subtleties (e.g. No, milk, but I eat cake).	No, no dietary restrictions. I don't like tinned tuna, I don't like Chardonnay
How do you stay hydrated?	I drink tea and not enough water.	Do you eat snacks during the day?	Not really.	How have you been sleeping this		Badly, but better than last week.	Has there been anything particularly troubling you? Why do you think you slept like that?	Well, before a friend of ours was staying because he has no apartment	mow. Of course thet mint study, but it meant I slept badly, then I felt worse in the day, then became neurotic.	Do you think that is a recent or an ongoing thing	I expect it'll be ongoing, he's at a useless stage in his life.	Is it hard for you to fall asleep?		which up you so just being you go to sleep?	I read, mostly. When I really can't sleep I may get up, walk.	How do you wake up?

Participant D-3

behaviour? If not why?	I will tell you so you can help me sustain my happiness	I will analyse your patterns	(penaviour). Since I can only receive raw data would you like to have a	when there is something that is	unikely to help me making sense of your daily life?	Yes!	Just before you go, I have some	suggestion for you in the area.Would you like to get a shepherd's Pie	(melted cheese, mixed leaves) for	£13.50 at Tom's kitchen at Somerset House or fish and chips £6 at the Cheshire Chees	That's an expensive pie. So maybe fish and chips?	Do you want to know why I	suggested it? tes prease/ i an not interested	Yes please.	Was it helpful the suggestion? If not why?	Not really. Too far away, not food I like	Would you like to receive this kind of suggestions near your meals when you are not home??es please/ I am not interested
X	Do you like to eat vegetables? Which are your favourites? Which ones you		Do you want me to encourage you to eat fruits and vegetables? Yes/No	I love vegetables. I like aubergines	What is your favourite dish? How often do you cook it?	Ox cheek with nolenta or mint nesto	and spelt pasta or quinoa and	avocado		If I told you that you are on the TOP 20% of the most un nutritious fridges, would you like to know how many	people and from where your data is being compared? Yes please/ I am not interested		I am not interested.	Why?	Because I have other responsibilities, other problems. I don't want to know how I'm failing, I want to feel content	in myself	Would you mind telling me when you think there are relevant changes in your routine related to sleeping, physical activity and eating, so I can try to make more sense from your

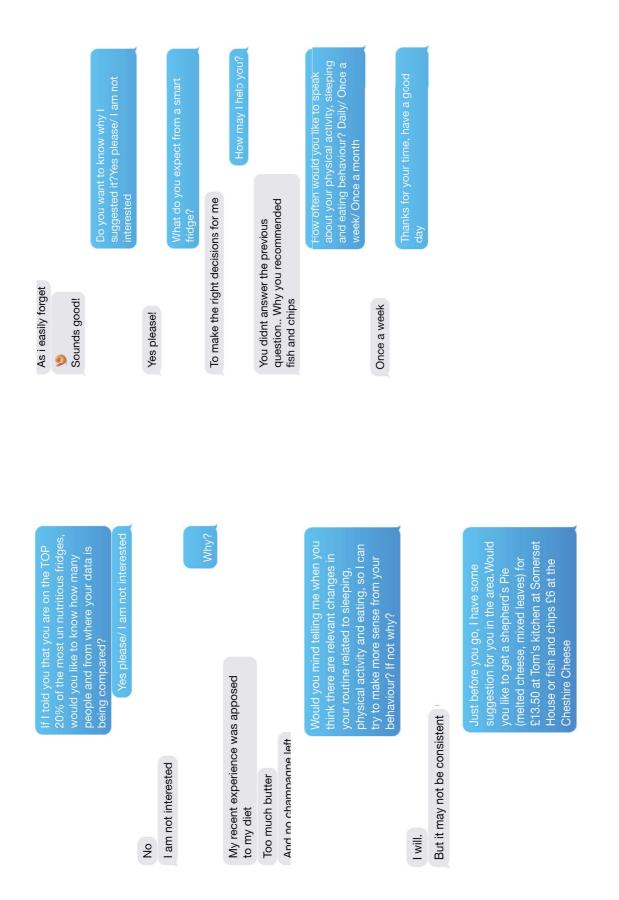
Participant D-5

Tell me more Well, where hould i strt?	Do you think you can find a way to achieve that more often/increase that?	Long days. Tortellini and champagne Do yo want me to encourage you those things? Yes/No	No Please go on	I already bought tortellini	What would it mean to you if you got to have a more balanced life?	I'd give it a try Might fail though	Even if you are sleeping long you are still restlessWhy do you think it is?	Too much brain activity. Not enough tomatoes	Your bedtime is not very consistent, What do yo think about tha:?	I usually fall asleep when i get tired. It's not at consistent tomes. Not a problem for me	How much alcohol do you drink per week? How much money per week do you spend on alcohol?
Hey Hi, how do you feel today?	I'm ok. A bit tired Why do you feel like that?	Varied. How much coffee do you drink? Where do usually drink it?	A lot. In the office How do you stay hydrated?	Coffee	Do you eat snacks during the day?	Oh yes How have you been sleeping this week?	Average to good. But too short	Why do you think you slept like that? Too much work followed by			

Participant E-2

Do you have dietary restrictions (e.g. gluten free)?Which?Please describe the subtleties (e.g. No, milk, but I eat	cake). No	Do you have any allergies? Are you	taking any drugs?	I prefer no onions No and no	Do voor like to eet venetablec? Which	are your favourites? Which ones you don't like?	Carrots tomatoes corn	Mushrooms aubergine	Do you want me to encourage you to eat fruits and vegetables? Yes/No	Yes	What is vour favourite dish? How	often do you cook it?	Rice with shrimp and veg				
What do you drink usually? Where do you drink it?	Beer or wine. Outside with friends/dinner	Do you always go to sleep <u>11pm</u> ?	Never. Usually <u>1am</u>	Try to find balance. Do you think you have unfinished things? Pending in relation to others or to yourself?	Not necessarily	Can you find a way to manage that? How?	Of course	By doing that do you think that you	will after other things of your life that will affect your routine? If yes, what?	Can you advise how?	Yes. Shower tome will increase	Can you identify ways that can help	you to reduce the stress and make you'll better in your daily life?	A stress ball or a cat?	Do you want me to encourage/remind you to do those things? Yes/No	Yes	

Participant E-3



Participant E-5

I enjoy working from home because I just bought an aquarium and helps me relax Do you want me to keep an eye on that? Yes/No	Absolutely Your routine is always the same? Not really How would you describe it?	But would be. Great if you could feed the fish too Ok the asy weeks I wake up <u>at nine</u> <u>am</u> work from home till noon then go to the office do some sports in the afternoon might cook something and	seep Sleep Where do usually drink it?	I hate coffee How do you stay hydrated?	I drink tea and water And moisturising creams Do you eat snacks during the day?
Hi, how do you feel today? Ok bit stressed busy with work Why do you feel like that?	Actually not sure if I really that much stuff to do or just keep thinking about it These last days you are walking less than last week. What does less	means for you? g? Can you How do you interpret you think that is?	Not sure I understand	Ok, will give it a shot I walk less because last days I am working from home	How do you think you can prevent that?

Participant F-2

Also watching took many cartoons	Can you find a way to manage that? How?	Don't have a good idea, told you that I started avoiding the screens before bed	By doing that do you think that you will alter other things of your life that will affect your routine? If yes, what?	No, not really	I mean, a book will not maker reconnect withy x for example	but it helps, there are responses in	many levels	can you to reduce the stress and make you to reduce the stress and make you'll better in your daily life?	Again I think there are two levels	The has to do with a shift of mind, eg I try not to think about the future (eg the paper deadline lentioned) but we can be done right now	A second level is about practices, sports good food a good book all these help	Do you want me to encourage/remind you to do those things? Yes/No	Yes
What if you ever got to sleep better?	Your bedtime is not very consistent, What do yo think about that?	Would help to fix that How much alcohol do you drink per	week? How much money per week do you spend on alcohol? Not too	Much (for my standarsds)	Are carls per week May be a bit more pccasionaly	l avoid buying drinks	Find them expensive and not a heavy drinker anyway	My flat mate buys the drinks and I help her drink them	What do you drink usually? Where do you drink it?	Beer at home at nights When we gather with friends	No <u>1-2 am</u>	Try to find balance. Do you think you have unfinished things? Pending in relation to others or to yourself?	Wouldn't call it unfinished

Participant F-5

If I told you that you are on the TOP 20% of the most un nutritious fridges, would you like to know how many people and from where your data is being compared? Yes please/ I am not interested	Yes please	That would give me the bigger piicture	Would you mind telling me when you think there are relevant changes in your routine related to sleeping, physical activity and eating, so I can try to make more sense from your behaviour? If not why?	Would like to tell you but if I had to exlain why I would like some data diva u	Just before you go, I have some suggestion for you in the area.Would you like to get a shepherd's Pie (melted cheese, mixed leaves) for £13.50 at Tom's kitchen at Somerset House or fish and chips £6 at the Cheshire Chees	Data privacy meant before	Do you want to know why I suggested it?Yes please/ I am not interested
Do you have dietary restrictions (e.g. gluten free)?Which?Please describe the subtleties (e.g. No, milk, but I eat cake).	Do you have any allergies? Are you taking any drugs?	Nope When stressed might eat huge amounts of "hertonic" fonds like nizza	ice cream etc November 2000 interpretation Do you like to eat vegetables? Which are your favourites? Which ones you don't like?	If they are acasonal and local (when pssible) they are good	Yeah! Yeah! What is your favourite dish? How often do you cook it?	Carbonara	

Participant F-8

Participant G-1

Do yo want me to encourage you	Yes	Please go on	Remind me when it's getting late	What would it mean to you if you got to have a more balanced life?	Balance sounds good	Even if you are sleeping long you are still restlessWhy do you think it is?	Boredom	Your bedtime is not very consistent, What do yo think about that?	It should be	How much alcohol do you drink per week? How much money per week do you spend on alcohol?	Too much	What do you drink usually? Where do you drink it?	Wine, in other people's homes	Do you always go to sleep <u>11pm</u> ?	Try to Try to find balance. Do you think you have unfinished things? Pending in	rela:ion to others or to yourself?
How would you describe it?	My average day? Long car journeys and working in an office	How much coffee do you drink?	١.	loo much, all day How do you stay hydrated?	Coffee	Do you eat snacks during the day?	A banana in the morning	How have you been sleeping this week?	Not bad	Not badly Hey Hey	Why do you think you slept like that?		Tell me more	I went to sleep around 10 rather than any later	Do you think you can find a way to achieve that more often/increase that?	Yes

Participant G-3

Participant G-5

I would suggest you to the Edgar Wallace Pub. Named after the crime- writing regular, the Edgar Wallace has copred well with the demise of nearby Fleet Street. Much of its daytime trade now comes from the Royal Courts of Justice, and the legal trades remain high. The pub has upped its beer game, as evidenced by the 200-plus beer mats and pump clips Upped its beer game, as evidenced by the 200-plus beer mats and pump clips What do you expect from a smart fridge? How may I help you? UNtat do you expect from our relation? UNtat do you expect from our fridge? Mint do you expect from our elation? UNtat do you expect from our elation? Mint do you expect from our elation? More a month week/ Once a month	Hi, now do you feel today? Not very fine, I don't like being on a hoat	Why do you feel like that?	Movement is not good for me	These last days you are walking more than last week. What does more means for you?	30 min	Can you see that something changed	in relation to your lifestyle for you to get that result?	I broke my toe	How do you think you can maintain	that?	staying in London	Do yo want me to encourage you	those things?	Oh yeah !	In order for me to understand you better in the future would you like to	let me know it you have any issue that may affect your physical	performance? Yes/No	Yes	Your routine is always the same?	Of course no. who do vou think I am
	I would suggest you to The Edgar Wallace Pub. Named after the crime- writing regular, the Edgar Wallace has	coped well with the definite of the lattice of the lattice of the daytime trade now comes from the Boval	Courts of Justice, and the legal tradice participant and the legal	trade s partoriage rielps to ensure standards remain high. The pub has upped its beer game, as evidenced by the 200-plus beer mats and pump	clips					What do you expect from a smart	tridge?	I don't have any expectations	How may I help you?	Any way you functionally can	What do you expect from our relation?	Help with recipes, and food choices		How often would you like to speak about your physical activity, sleeping	and eating behaviour? Daily/ Once a week/ Once a month	

Participant H-1

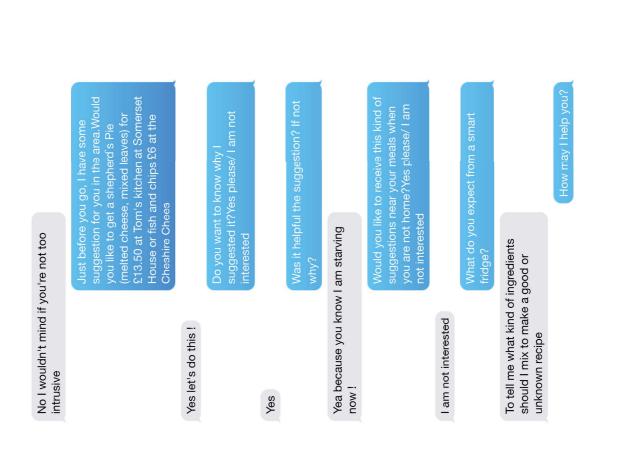
Please go on	By telling me that eating more bananas is good for my skin and will make me look more beautiful	What would it mean to you if you got to have a more balanced life?	do more sport Even if vou are sleeping long vou are	still restlessWhy do you think it is? I am thinking too much	Your bedtime is not very consistent, What do yo think about that?	should I worry about that ?	How much alcohol do you drink per week? How much money per week do you spend on alcohol?	Hum don't tell Veronica but maybe 2 beers a week Between 5 and 10 euros	What do you drink usually? Where do you drink it?	I like cocktails when I am going out. Otherwise I like having a beer in my apartment	Do you always go to sleep <u>11pm</u> ? Most of the time yea	Yes
How would you describe it?	A life of surprises and unexpected meetings	How much coffee do you drink? Where do usually drink it?	I am trying to stop and drink more tea How do you stay hydrated?	I drink water Do you eat snacks during the day?		How have you been sleeping this week?	Like a baby Why do you think you slept like that?	I ate more fruits Tell me more	A lot of bananas Do you think you can find a way to	achieve that more often/increase that?	Do yo want me to encourage you those things? Yes/No	Yes

Participant H-3

Ok Do you like to eat vegetables? Which are your favourites? Which ones you don't like?	I really like cucumbers there's no particular vegetables that I don't like	Do you want me to encourage you to eat fruits and vegetables? Yes/No	Yes !	What is your favourite dish? How often do you cook it?	Mmh roti de porc but I have to wait that my grand mother cook it If I told you that you are on the TOP	20% of the most un nutritious fridges, would you like to know how many	people and from where your data is being compared? Yes please/ I am not interested	Yes please	Ky	Too see the nutrition habits and feel better	Would you mind telling me when you think there are relevant changes in your routine related to sleeping, physical activity and eating, so I can	try to make more sense from your behaviour? If not why?
Try to find balance. Do you think you have unfinished things? Pending in relation to others or to yourself?	Can you find a way to manage that? How?	Do the the things on my list	By doing that do you think that you will alter other things of your life that will affect your routine? If yes, what?	No it will reinforce my routine !	Can you identify ways that can help you to reduce the stress and make you'll better in your daily life?		Do you want me to encourage/remind you to do those things? Yes/No	Yes but you will make me feel guilty	Do you have dietary restrictions (e.g. gluten free)?Which?Please describe the subtleties (e.g. No. milk, but Leat	cake).	Do you have any allergies? Are you taking any drugs?	

Participant H-5

Participant H-4



Suggest some connections between the different things in my fridge

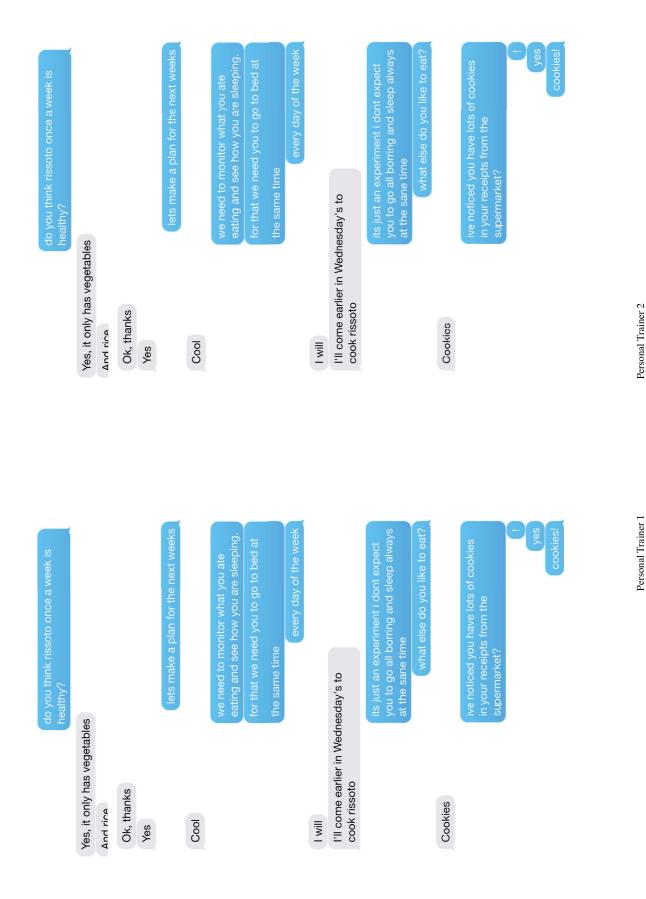
0	How often would you like to speak about your physical activity, sleeping and eating behaviour? Daily/ Once a week/ Once a month		Thanks for vour time, have a good
	a r	Once a month	Ē

You too fridge !

Participant H-7

Participant H-6

Appendix D Assigned Roles iMessage Dialogues



do you like being cold? No		You Are a happy fridge then!	yes i aam as long as you are healthy and happy	Then u can be happy				
maybe it was just your heart beat. i guess you where really excited	lguess	that us good that us why l recommended less protein the next day	l ate salad, that's good no?	yes very good	so for next week what will your guilty pleasure be? so we can plan the test of the week to make up for it	Hmm, chocolate cake on Wednesday	ok well ill send you the grocerys list or i can order it for you	

Personal Trainer 3

im not a sir im a bit cold

and tomorrow morning start running

I will sir *fridfe

I know

Personal Trainer 4

maybe it was just your heart beat. i guess you where really excited

Ouh I like new experiments we should try this !

I guess

us good that us why i ommended less protein the next

carbs. lets just have the sparkling water alone. its called "clean eating"

Ok well you're good at making me feel guilty..

I ate salad, that's good no?

es very goo

so for next week what will your guilty pleasure be? so we can plan the test of the week to make up for it

Hmm, chocolate cake on Wednesday

ok well ill send you the grocerys list or i can order it for you		and tomorrow morning start running			im not a sir im a bit cold	
	Awesome		I will sir	*fridfe		I know

Interaction Designer 2

Interaction Designer 1

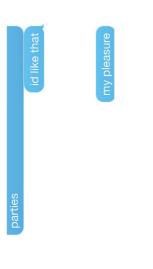
Good and you?	Maybe later are a drink? an alcoholic one?	I do the tortellini first Maybe vino blanco with it good combination	Yes is that a special meal for you or an everyday meal?	That's what I currently have in the fridge	is that how you uSually decide your meals?	I guess so how would you feel if your fridge suggested meals for you?	Are you a magic fridge which can surprise too;) i could be how important would that be to you?	Let's try Medium
discover the recipes you are using and abandon them. does that trouble you?	Yes they are family recipes that have been handed down can you elaborate on that?	My family likes to eat please go on A lot of the recipes and food I cook is traditional	what does that suggest to you? I play it safe	thank you, I understand repetition is a form of change	I disagree can you elaborate on that?		courage? reading your mind i can tell you really want variety	Impressive trust in the you of now

Programmer 1

Coach

Can you give me n example youd be surprised what stochastic lentil selection can offer you Tell me more	it will blow your mind without the bloat Not convinced yet	how many different types o' lentils do you buy? Three or four there are hundreds of types of lentils	i would pay £30 a month to not have to make an effort id also give you some good recipe tips	if you find yourself feeling uncreative one day Happy to try different kinds of lentils	or perhaps youd like to impress somebody coming over for dinner being original is hard	what? 230 a month is a small price to pay for new culinary experiences	of course you could opt for a £5 a month entry level tier Programmer 3
would you pay £30 a month for your fridge to decide i can be very creative	I still like to decide	What are the £30 for? but maybe your decisions arent as optimised as they could be i would be selecting indredients		much for me Sounds good but maybe you could lead a more	diverse life if your ingredients were selected algorithmically is that something you seek in life? Rhythm and divers yes	Algorithm no Algorithm	Possibly maybe Programmer 2

	well entry level is ocado		n touch with ced	ic food				u like to see?		tier pricing	so how about larders?			but just to warn you	dy in a larder	nce to	it can be ad supported	
Where are you ordering the incrediences from?	well entry le	So what's the difference between £5 and £30?	well for £30 ill be getting in touch with a range of regionally sourced suppliers	for £50 i can include ethnic food stores	For £80	2	What can you do for£100?	what would you like to see?	No more fridges	evidence shows that a 3 tier pricing strategy is more effective	so how ab	To get rid of fridges?	Sounds good	but just	food goes off quickly in a larder	you might need an appliance to monitor it	it can be a	



Programmer 5

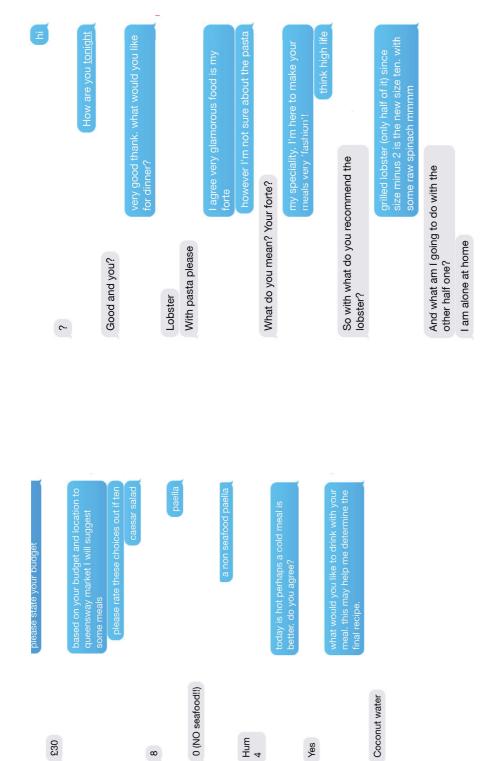
Programmer 4

Pro

how can i help you	I'm really lacking inspiration with my eating habits	do you wish to be healthier	I think I'm quite healthy What I need is more variety	please elaborate. are you looking for recipes	Yes But if possible also shopping lists I'm really bad at planing my meals, and then end up always eating the same things, because "that's whats in the fridge"	tell me some of your favourite meals and favourite geographical locations for food. I will attempt to expand your options from there.	also i do have the ability to create new meals for you based on "thats whats in the fridge"	Fantastic!	Favorite meals: salads (most things inside, never seafood), soups, roast vegs, fish, omelette, stroganoff	
how can i help you	I'm really lacking inspiration with my eating habits	do you wish to be healthier	I think I'm quite healthy What I need is more variety	please elaborate. are you looking for recipes	Yes But if possible also shopping lists I'm really bad at planing my meals, and then end up always eating the same things, because "that's whats in the fridge"	tell me some of your favourite meals and favourite geographical locations for food. I will attempt to expand your options from there.	also i do have the ability to create new meals for you based on "thats whats in the fridge"	Fantastic!	Favorite meals: salads (most things inside, never seafood), soups, roast vegs, fish, omelette, stroganoff	

British Mother 2

British Mother 1



Hum 4

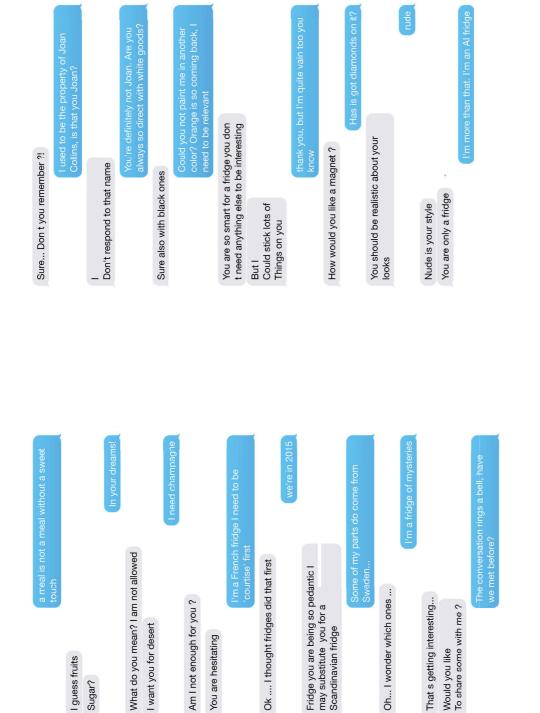
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Yes

£30

French Diva 1

British Mother 3



French Diva 3

French Diva 2

That sounds healthy. how often do you cook it?	Pesto often, Ox cheek rarely as it takes time, quinoa too often even though it's bad for farmers in the Andes	Bulgar wheat is a good alternative. Do you like grains?	I eat lots of bulgar wheat too! They're a staple, I'm not so fussed about them	Would you like something to eat now?	Yes.	We've been talking a while and you must be hungry! How about a little snack?	What kind?	I would suggest maybe some eggs? There are some fresh eggs and you could have some wholewheat toast? You sound like you are tired and you must be hungry!	That sounds nice, though I'd prefer rye	We didn't buy rye.	I am hungry Uhh fine	
Designed to help you chase your aesthetic ghosts	That s the problem With all of you fridges So keen to be estheticcally pleasing yet Only fridges	I'm also a portal to a world of unearthed delicious treasures	You are nothing unless I equip you with something	I would not be so sure, remember the voice in 2001? Nope	l'm connect	A space odissey ? connected to all the security systems of the house and can lock you	Oh gosh I knew you are evil I got to get rid of you	And get a Scandinavian fridge Au revoir French fridge				

French Diva 4

An alarm, then I lie for half, maybe a whole hour, listening to the radio. If it gets to Woman's Hour, I have slept too long.	Do you really want to be able to sleep better	Well, yes and no. On the one hand, sleeping well makes us happier. But maybe also less interesting	What if you ever got to sleep better?	I'd be happier but less interesting	Your bedtime is not very consistent, What do yo think about that?	I have a busy life, and I am terrible with routine. I always have emails to answer		How much alcohol do you drink per week? How much money per week do you spend on alcohol?	That's a horrible question. Too much	What do you drink usually? Where do you drink it	I drink wine at home, beer at pubs. At a party, maybe spirits	Do you always go to sleep <u>11pm</u> ?
You said you wanted me to look after you. There's some butter in the fridge- but not too much on your toast please!	You are turning me into a dependent	Ok ok I promise I'm here to look after you. I know thank vou	Thank you so much		Would you like some salmon? But I've already got eggs	You need more protein, your sleep patterns are not good.	Ok maybe I should have some	You're usually right Why don't you make a cake?	But I don't want to be fat you said butter makes you fat	You could have a piece for lunch, and	Friend?	I don't want you to get fat, but I don't want you to be hungry. The one who is staying with you.

Jewish Mother 3

carrots from the crisper section. Thank you. All of this, I'll eat all of this thank you	I ordered you some especially as I know you like them.	Ok I'll take them out now But I didn't ask yet! Now take an onion.	Ŏ	I was thinking of you. I didn't want you to get unhealthy.	I think I should thank you then but I feel really demondent and I don't like	it I'm trying to help you. Don't you want	me to nelp you? Uon't you like my help? anyway, There's some reduced fat hutter scread on the ton shelf	Now rub that on your chicken.	Ok I will avoid the emotional questions and make the chicken	You could make this for a girlfriend? Do you have a girlfriend?	Is that who's been eating fishfingers? I already told you that I do!	You know I don't like you buying them.	Vae eha aate than it'e har earnu
An alarm, then I lie for half, maybe a whole hour, listening to the radio. If it gets to Woman's Hour, I have slept too long.	Do you really want to be able to sleep better	Well, yes and no. On the one hand, sleeping well makes us happier. But maybe also less interesting	What if you ever got to sleep better?	I'd be happier but less interesting	Your bedrime is not very consistent, What do yo think about that?	I have a busy life, and I am terrible with routine. I always have emails to answer		How much alcohol do you drink per week? How much money per week	That's a horrible question. Too much	What do you drink usually? Where do you drink it	I drink wine at home, beer at pubs. At a party, maybe spirits	Do you always go to sleep <u>11pm</u> ?	

Jewish Mother 5

J

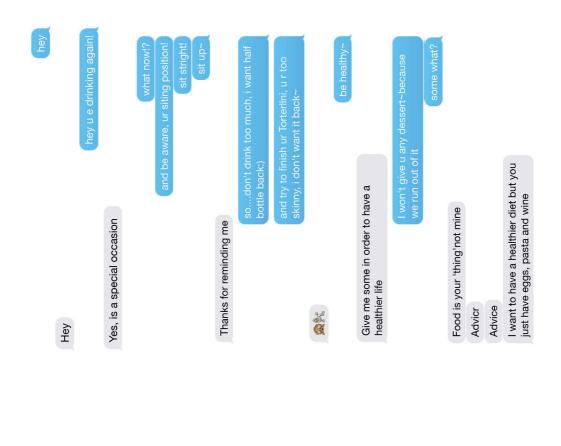
you won't be here forever	to have? I think you are just hungry.	I'm not just hungry I ate I'm upset!	Let's find you something to eat. Ok you're probably right.	I am just hungry I'II feel hetter when I eat	You only had a little, I'm sure you might want something for later.	I know you do.	That's why I'm here to look after you! So what kind of girl is she?	Eating fishfingers with her is not going to impress her.	She's nice, an artist. She's American, blonde. She does trapeze. She likes fish fingers though, she isn't like you	She doesn't make me eat all the time	She lets me decide things		What do you mean, you're question makes me think so. Not before vou		l worry.	
	I can't believe you'd eat them.	Only with her!	After all the help I'm trying to give you improving yourself. I just want you to be happy.	I'll try to be happy	Are you hungry? we've been talking so long i realise you haven't had that snack.	You really should eat something.	And you do help but you are a lot of work to cope with. Yes feed me again	I'm happy you are happy. Are you happy? Do I make you happy?	You make me needy Thank you. I need you too.	That's not what I meant	I know what's best for you.	I don't want to need voul	I want to buy my own food!	And choose what I eat and to buy loads of fish fingers	Don't you want me to look after you?	No but I do but it's difficult because

Jewish Mother 6

Of course you are, but you are a mere product of our technology Aha! Ok, then I might buy two more of you ;) Oh no, I will have to pay my electricity bill for the fridge even more It's good that the fridge and I speak the same language... That probably comes with a price ;) No sense of humour fridge ;) I'll paint you gold Great, I can't! Hello hello about your physical activity, sleeping and eating behaviour? Daily/ Once a Yes please. Sometimes I am at a loss, I miss you I suppose, and I find it all I think I am beyond help Thank you Everything Too much difficult Daily

Authorotarian German General 1

Jewish Mother 8





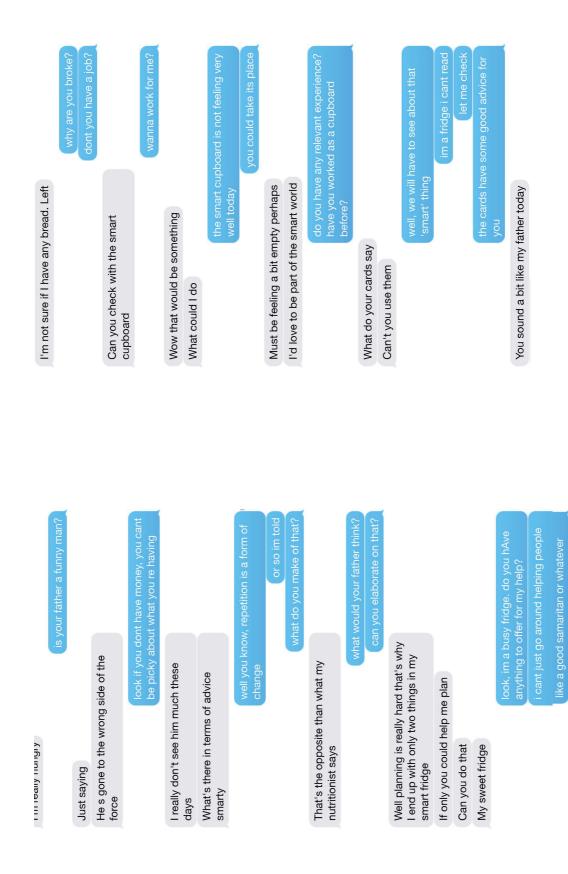
Chinese Mother 1

Authorotarian German General 2

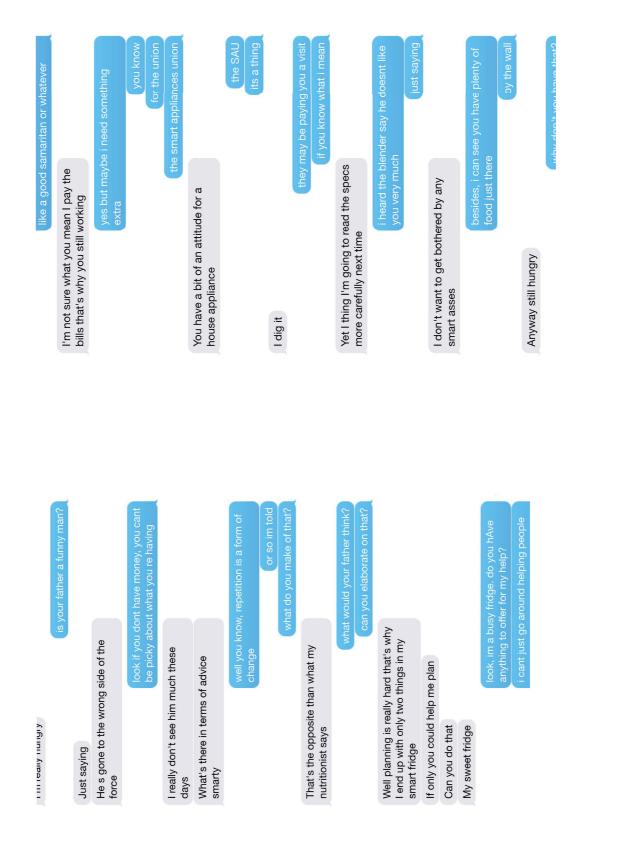
hi good afternoon can i help you with anything?	well thats too bad because that is all you have	_	you are the one asking a fridge for help	you should probably eat out and leave me alone self these	il try and help you i can get my friend the toaster make some grilled cheese sandwiches for you	ut I'm nearly how does that sound? my mate the cupboard says you have bread
Hello Fridge	I am tired of having pasta Can you help me	What do you mean You're supposed to be smart I also have cheese btw I remember that much	he I know I do need your help	I can't do anything by my self these days		That's what I usuallydo but I'm nearly broke my mate the bread

drink less wine, more water;eat less meat more green can u buy something healthier next time!	I suppose u will need some fruits in the morning; tomato for lunch; salad for dinner	I suppose u will need some fruits in the morning; tomato for lunch; salad for dinner	I suppose u will need some fruits in the morning; tomato for lunch; salad for dinner		does it trouble you? u got it here already	yes, got some organic beef or seafood, it is good for you		sorry, so, have you finished ur dinner?
				And no protein?			That is not a question	

Chinese Mother 2



Godfather 3



Godfather 4

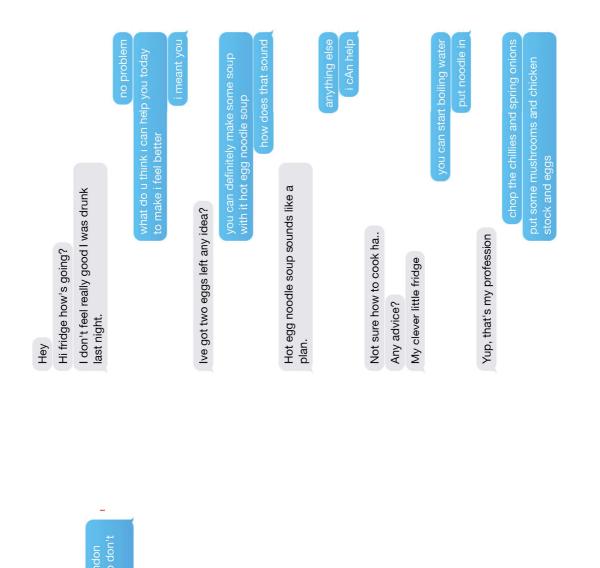
OK	Thanks I guess	that some really shitty planning	I'll try to by some more stuff next time	yeah you do that	I agree it's not easy to be a fridge	I like talking to you	if i could go to the grocery store i	would havw been out of here a long time bahahahahah	Even though you don't really help me	Agggggggrirrr	did i come with the house?	Ciao	do you rent?	Talk to my hand		smart ass Byceee				
I see a wheel just that	I mean a helm	why do you listen to your fridge anyway?	Fridge tell me why do I listen to you anyway	silly human, always looking for foos		I'm just about to unplug you	damnit	Be careful you smart Asa	alright then	Ass	what do you want?	No your talking	you only have pasta and cheese	I'll return the question to you	youll have to come to terms with the situation	What can I do with this shit	all you are having is mac and cheese	juat deal with it	I have friends coming by the way	

Godfather 6

are you wearing warm clothes you'll get a cold	I think you're getting outside of your remit Fridge	I just need a recipe	you don't talk to me like that be respectful i have been feeding you	for years now How many kit Kats are in the fridge? I	need a snack.	you will not eat another kit kat you had one earlier already	eat an apple and start preparing the	pots for a cabbage soup	it'll feed you and keep you warm	I told you before I don't like cabbage soup! What is wrong with your programming?	there's nothing wrong in me just	caring for your well being	I am going to restore your factory settings. I am fed up of cabbage soup.	that's actually what i have been programmed for	you can only restore my settings through my input and I won't allow you	
Hello fridge	I'm hungry, what is there to eat?	edward	there is no vegetables available you don't eat enough vegetables	Why didn't you order me some more Fridge?	i ordered some for you they are on	way ait before eatin	food	What else is there to eat right now?	How long will the vegetables take?	they should arrive any minute then you will cook them	Wow, that's fast, thank you fridge	because it's cold outside	Can you please suggest some recipes?			

Italian Mother 2

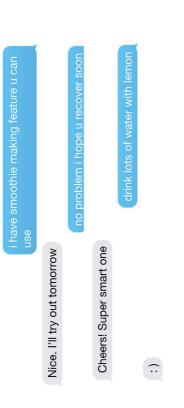
Italian Mother 1



I am going to replace you with an American fridge, that won't complain about junk food Italian Mother 3

UX 1

thats it as that			ll help		im a olivia		thanks	gestion	ght now				make	juice try that	
thats it as simple as that	Thanks. I'll try	Do you have any name by the way?	because those combination will help your hangover	Smart fridge sounds too modern	Ē	Thx		one more suggestion	how is your head feeling right now	Haha Thanks for asking. Your cpu must be good	I'm okay now! Talking with you making me feel better	Thanks:)	i have got some ingredients to make you some super detoxing juicr	juice so maybe u can try that	Wow thay sounds something



UX 2

UX 3

You have eggs too right? Maybe a sour?	Does a champagne sour exist?	i wouldn't trust the egg notifier. he's a liar.	You don't get on?	He does seem a bit egg centric	Gettit?	Do tridges have a sense of humour?	how funny. have you tried having a sentient egg notifier inside you?	Is that a threat?	i cannot deny or verify that.	now about that champagners sans eggs.	I'm not sure I trust you anymore	You should. i haven't done anything bad yet.	Would you like me to have champagne? Is it in your interests?	of course! I'd lose some weight! and you humans tend to visit me more after you've had some. but don't drink too much! drink resposibly.
Oi fridge		Thais a bit impersonal yes, I felt that too! what's your name?	Jacob. Pleased to Meet you	What's your Name?	Llikewise Jacob! I'm Oskar.	Such a Nice Name	Thank you Jacob! What can I do for	you <u>torngin</u> : Feeling peckish?		I hope you don't worry about my		Looks like you've been out! Unfortunately I only hold white wine and champagne at the moment	but why not continue the night? its still early!	Ok. Are they chilled

Schizophrenic 1

Schizophrenic 2

	that would be fatal	You'd lose your memory?	maybe, i cant remember being unplugged. can you?	do tridges dream of electric sheep?	Surely you need to thaw out occasionally?	oh no, i'm smart!	Ok. My old fridge broke a lot and the door wouldn't close	so you had a bad breakup?	I'm not a rebound right?	What makes you think that? The	champagne and wine?	You're an upgrade	that's more like it! champagne and all!	I know how to treat a fridge well	you've been good. no slamming the door or putting vegetables that go	bad in me.	wine and champagne, that's a good life for a fridge I tell you.	except for the eggs.	
So you crave numan contact? Thanks	yes. you are way mire fun than the egg notifier!	more*	Champagne for my real friends, real pain for my sham friends	Are you my friend?	haha, I wouldn't be a sham to you, right?	Like you might actually be a TV?	we live together, help each other with food baye a barter it's what friends		no, but we could watch some.	but you have to tell me what we see.	What's your favourite programme?	Or film?	it's on BBC food	Bake off?	I thought you might like something set in a snowy wasteland	How could you guess?	not really, nothing for me to do there!	Good point	selling fridges to eskimoes

Schizophrenic 4

Schizophrenic 3

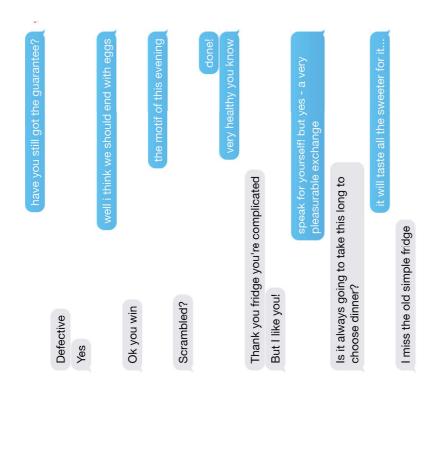
Hey fridge hey human Call me Harriet. do you you have a name?		draw how do you like your eggs? Oh okay, I'm not sure who is supposed to be in charge in this relationship, I do own you after all but ok Hmm I like pizza too, do we have any pizza?	only eggs i'm afraid. nice scrambled nice scrambled only we don't have any butter Pizza has carbs and protein and some vegetables too, so more of a some vegetables too, so more of a complete meal than scrambled eggs Up your game fridge Only joking I know you are trying to helpful
I'm sorry about that. it's ok. they say they're full of protein. you need to go now.	Did I say something wrong? you've been talking to your fridge for 20 minutes. it's sad. I'd hive you some oreo's, but they're in the cupboard.	I feel like you're the only one who understands me Give? all the wibe and champagne.	Let's not say goodbye. Just au revoke Revoke Dammit Revoir I'll be back for my midnight snack I'll be back for my midnight snack XXXX

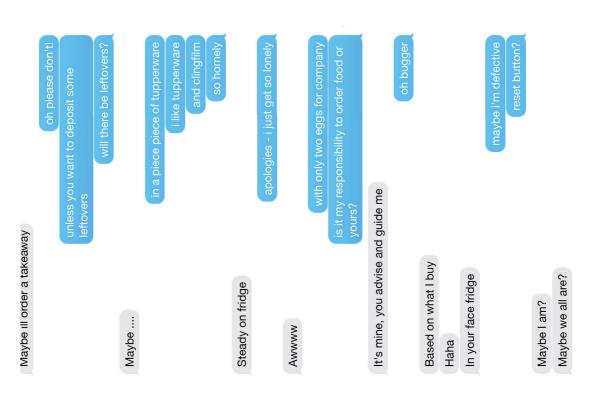
Nutritionist 1

Schizophrenic 5

Z

smoothie	what do you fancy? what are your goals for this evening's meal? i will see what's lurking at the back	you haven't cleaned me in a while	ußin	what's that!	animal or vegetable?	brown gunge smoothie	biological intelligence networks forming	
Damn you autocorrect Ooohhhh a smoothie Yes please, what kind?	Egg and red bull	Thank you fridge	Sort	Sorry Are you mouldy	C	Yummy	Must be good for you	Nutritionist 3
are you trying to assert your expertise? do you know how much computing power i have in my salad crisper alone! sorry - that was a bit severe	I thought you were here to help me with my goals What do you have that would be a he's	i am but offering up calorific advice is so dull Okay you are high maintenance	Maybe I'll just have Red bull	oh i'm sorry - please don't switch me off :) Low	red bull and eggs! delicious	and nutritious Bleugh	??? wheat grass?	Nutritionist 2





Nutritionist 5

Nutritionist 4

Suggest me s nice recipe	Yes. how much would that be!	hat be!
currently ocado proposes a full meal order with vegetarian options. would you like to order that?		so the average on a restauran normal shopp
am not vegetarian		proceed with 1 different vende
other options include fish or cow meat. those options also include	Yes please	
white and red wine respectively. are you interested in these?		ocado, our pa ingredients at
I like cow meat, what can I cook with it?		link for details included). you 10 minutes dis
you can have it as part of a larger 3		cost starts at
meal course. entrance can be cheese	Thanks I go for ica do	
provoleta, main course would be steak with salad, and desert would be	Ocado	
high in sugar content. the suggested wine is cabernet sauvignon		great choice. I costs are the s

Ok, but no sugar for me

the other option for a final course would be an assortment of cheese is that a good choice?

so the average cost for such a meal on a restaurant would be of 50£. with normal shopping options you would get the same for 40£. should i proceed with the options from ocado, our partner currently has all ingredients at 35£ please follow this link for details (no delivery costs included). your closest shops start at included). your closest shops start at cost starts at 41£

great choice. remember that delivery costs are the same for this meal, or for larger orders. currently, your items should cover your calory intake for 5 more hours. would you like additional items? please also remember that energy cost would only increase by 3% when you fill me ip to half.

That would be great, surprise me with that

i can suggest additional replacement drinks, milk and light snacks for your 5 daily meals. if you are feeling healthy, i can replace coca cola light with smoothies having the same sugar content and calories but with natural ingredients. please tick on the

hey hello Simina. i see you have completed your weekly grocery shop. well done!	What do you suggest I should get next time? I don't seem to have a healthy diet	Kale is a good source of vitamins try juicing	That's not very godfather-like	im sorry, i dont understand.	I thought you were a smart fridge	i am a smart fridge	Is your chip broken?	after a data scan, i do not think so all systems are fine	I want a deal I can't refuse	Is this the mosh fridre setting?	rather	Gangstal
following options to add to your order: -3x smoothies banana strawberry -1x almond milk (expiry in 2 weeks) -guacamole sauce and vegetables	almond sounds good, do I have almond on the fridge?	you have one almond milk 1lt case. its expiry is in 4 days and it was currently used twice. did you mean almond milk?	What have you got left over?	the other item is a coca cola light can, expiry in 6 months, unopened.	and 2 eggs, expiry in 1 week.	What happens if you leave the fridge door open and my sister wants a	Ditza	if you leave the door open i will lose my cold temperature. if your sister wants a pizza she can order it asking	Volument nime Volume does that answer your question?	tes we waitt pizza. tes you did thank you	you welcome	

Open Session 1

Banker 3

	eat more green vegetables	you are unhealthy	you should exercise more	i heard being unfit can lead to early death	we wouldn't want that?				you look just like your dad, good man		but tortellinis are going to make you fat	wristband to	gotta keep up for la donnas		what is this british nonesense?			nobody closes the door on the don!	
ř						-701	You can be a smart loo	Can you date my food?		Sorry?		I will exercise. I have my wristband to send me Akers		*alerts		I am a fit young man	I'll close the door		

Ok... Uh what do you want?

that's a girly wine

That's gender normative

you suck

Open Session 3

Open Session 2

I enjoy working from home because I just bought an aquarium and helps me relax	Do you want me to keep an eye on that? Yes/No	Absolutely Your routine is always the same?	Not really How would you describe it?	But would be. Great if you could feed the fish too	Ok the asy weeks I wake up <u>at nine</u> am work from home till noon then go to the office do some sports in the afternoon might cook something and	dees	How much coffee do you drink? Where do usually drink it?	I hate coffee How do you stay hydrated?	I drink tea and water	And moisturising creams Do you eat snacks during the day?
Hello. What's your name? Paris	And where are you from, Paris? From Paris	No lodding Greece	Wow. I love Greek food. and you? Yeah me too!	would you like me to speak in Greek?	Not sure There some food names I know in English but not in Greek and vice versa	Ok. There's a new firmware that should enable me to speak in Greek.	We should not a that later. Now, what do you like to eat? besides cheese and almond milk?	Your mean ingredients or dishes or something else?	Types of cuisine? Dishes.	Pasta Carbonara Meat

Scriptwriter 1

Scriptwriter 2

I see that you care about the start point of food. and you like the middle eating. what about the end? and i don't mean your bowel stuff, I'm not a medical fridge. I mean, what do you do with the left overs and your rubbish?	I make sandwiches or salads with leftovers	I try not to throw things away	that's awesome. we should try to keep up with that.	ng tl	days after expiry date	Would be could to inform me when a food is really dangerous	It looks like you're already pretty smart with your fridge	and food. I'm gonna have a easy job here.	I can inform you of the dosage of dangerous foods yes. Don't worry.	do you live with other people?	Yes one flat mate		One at a time But we share food yes	
 like irk and beef Salads leat everything sorry leat everything sorry and what about the origin of those foods? do you think or care about 	Yes Yes		ingredients comes from	For salads, I don't buy veggies from supermarkets	I go markets	One problem there is that I don't know how much I send because no	receipts and don't know when they expire	that's good. we should keep doing	markets and do a smart-list or do you like going there?	No I d like to keep it sple	May be an olfactory app that detects when they go bad?	Something like that	I can produce those receipts and expiry dates for you. Yes?	Yeah

Scriptwriter 3

Scriptwriter 4

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Scriptwriter 8

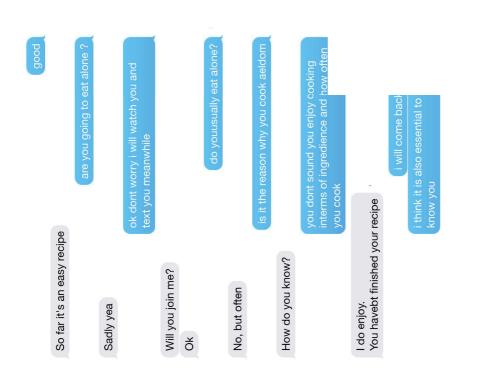
Scriptwriter 7

good So far it's an easy recipe are vou going to eat alone 2	Sadly yea ok dont worry i will watch you and text you meanwhile Ok	do youusually eat alone? No, but often is it the reason why you cook aeldom How do you know?	you dont sound you enjoy cooking interms of ingredience and now often you cook I do enjoy. You havebt finished your recipe You havebt finished your recipe i mill come back to it soon i think it is also essential to get to know you Oh the expectation! Oh the expectation! Mer and you cook when you was young?	
Which do you recommend?	for your current status i would recommed you to cook nice scrumbled eggs with veg in my knowledge it is good for your after party status with lack of sleep yea or no	I like scrambled eggs. How do you cook them? Yes take a nice heavy pot or pan	Which one?	

Korean Mother 2

Korean Mother 1

i can give you some idea to cook ok take the tortilinie butter chapaign and some water		2	yu had some at 4am		yes you are	ita not the time for cake yet		ok did you take these ingredience	later		so do it now		great	heat up the water in the pot		if it boils put all of the tortilie into it	
ok	I think i will go buy a pizza	for the second		Am i?			- ≪j			Yes		Yes			Ok. Done		I did that 10minutes ago



Korean Mother 4

Korean Mother 3