

Kitchy: Interconnecting and Situated Commensality

by

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Abstract

Commensality is when two or more people come together around the same table to eat. Research has pointed out aspects in which commensality has benefits for people's collective and individual wellbeing, their nutritional health as well as their carbon footprint and food waste management behavior. From interviews of 20 people in four different socio-economic livelihoods close to ITU Copenhagen, we found different factors that influence people's commensal eating habits (mostly related to levels of affinity with different social groups and individual goals/sense of purpose).

We inform our design by drawing on user research and desk research, and by iteratively testing ideas with users. As we find that most existing services are designed to help people *interconnect* with each other, we propose a service that is also *situated*. We emphasize the role of communication in all aspects of the experience as a co-factor in shaping each participants perception of a commensal event.

The proposed service design was tested with respect to its ability to interconnect over an SMS interface and its ability to facilitate turn-taking storytelling (Goffman, 1981, p. 42) in a situated dinner setting. Different modifications of these aspects have been explored and the discussion shows that commensality is a ritual that technology can help facilitate but it has to do so by *speaking the language of the users*.

AUTHOR KEYWORDS: COMMENSALITY, INTERACTION DESIGN, USER-CENTERED DESIGN, NATURAL INTERFACES, CONVERSATIONAL AGENTS, PRAGMATICS, SPEECH ACTS

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¹With reference to Schuetz (1945), and, Carlston (2013, p. 502)

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Chapter 1

Introduction

This project was carried out in fulfilment of an M.Sc in Software Engineering. The two authors, Med and Paul, hold B.Sc degrees in Telecommunications, and Maths&Philosophy respectively. The field of study is Pervasive Computing and within this we focus our attention on the method of interaction design in designing service systems.

As the topic of our research we are focusing on commensality among people. Explained more specifically we can say that:

With a primarily user-centered approach, we seek to design and evaluate a service intended to facilitate commensal meals between unacquainted people.

The guiding question in this endeavour is *What is the role of communication surrounding commensality and how can it be embodied in an information appliance?*(Norman, 1998), and the setting for our research is the intercultural and post-modern metropol of Copenhagen.

The research, to various extents, also touches upon the fields of location-based services, context-aware computing, interpersonal psychology and social cognition.

1.1 Background to the Research

Civilization has so cluttered this elemental human-earth relationship with gadgets and middlement that awareness of it is growing dim. We fancy that industry supports us, forgetting what supports industry.

ALDO LEOPOLD (1949): A SAND COUNTY ALMANAC

The topic of commensality situates itself inside the wider topic of “foodways - behaviors and beliefs surrounding the production, distribution, and consumption

of food” within societies (Carole Counihan, 1999, p. 6; Elsner, 2002). Since a third of food worldwide is currently wasted (Peek, 2014), we think it relevant to include the wasting-aspect into the concept of foodways as well. This is also important to note because, “as humans construct their relationship to nature through their foodways, they simultaneously define themselves and their social world” (Carole Counihan, 1999, p. 24; Quandt, Arcury, Bell, McDonald, & Vitolins, 2001; Ochs & Shohet, 2006). Food is not a fixed entity either, what is considered edible by some is considered inedible by others giving ground to distinguish people from eachother (Carole Counihan, 1999, p. 7), but when we can agree and commensality can ensue, it can take the form of “potlatch” (Mauss, 1954, p. 17) to a myriad of other forms (Kerner, Chou, & Warmind, 2015). Furthermore, while certain kinds of foods carry romantic and intimate connotations (Furst, Connors, Sobal, Bisogni, & Falk, 2000), others are considered inherently “magic” and endowed with special powers (Jelliffe, 1967) (like milk in many Scandinavian countries is considered inherently good (Bildtgaard, 2008, p. 103)). Food is also an aid in treating and preventing diseases as Elsner (2002), Quandt et al. (2001) points out. With the symbolism and metaphors that food embodies, it is also as if our food and foodways constitutes a language in itself (Szatrowski, 2014; Rangaswami, 2014). In sum, food has a lot more *meaning* than what is suggested by a quick look in a dictionary¹.

In turn, Wrangham (2009) hypothesizes that our discovery of the technology of cooking some 1.8 billion years ago in the years of the early homo erectus, was a significant factor in developing our “social brain”. According to Douglas (2011, pp. 82-104) (See also Elsner, 2002; Carole Counihan, 1999; Szatrowski, 2014), food reflects relationships within many types of social groups (couples, families, friendships, neighborhoods, cultures, class, caste, race, and gender). And by differential control over food and access to it, it is also a way of creating and maintaining hierarchies and power differences (Goody, 1982). Sharing food elevates the individuals sense of worth in communities (Marshall & Anderson, 2002; Quandt et al., 2001; See also Alden & Trew, 2013). In some cultures, if sharing food is done between a man and women it is effectively the same as declaring marriage (Carole Counihan & Kaplan, 1998, chp 1). Communication plays further a crucial role in commensality as it is another way of “establishing communion” and relationships. Hayakawa (1949, p. 80) writes that people establish communion by reaching agreements on *light* topics first as a way of fortifying trust between participants, before taking up conversations on *heavier* topics. Jurafsky and Martin (2014, Section 1.2) introduces computational natural language processing as a series of methods for the purpose of disambiguating everyday language, and similarly we see human

¹See <http://www.oed.com/view/Entry/72632> and <http://www.britannica.com/EBchecked/topic/212568/food/>

information processing as a way of disambiguating “events” (Szatrowski, 2014, chp. 2) in the world to construct *meaning*. Like food has been shown to form relations and social structure, Maturana and Varela (1987)(See also Wittgenstein, 2010; Bateson, 1972) similarly argues that our language is essentially “lingual-laxis” - linguistic tropheallaxis that creates and maintains perceptions and social structures within and between social beings.

The world is always changing, and like so, our foodways have changed enormously within the last 500 years. McLuhan attributes most of our modern developments to “mechanization” following the invention of the Printing press (McLuhan, 1994). Goody presents the same view on the mechanisation of food (Goody, 1982, p. 166; See also C. Counihan & Van Esterik, 2013, chp. 7). There has been many changes: 1) Transitions from open farmer markets to grocery shops in Elizabethan times were the precursors of modern supermarkets (C. Counihan & Van Esterik, 2013, chp. 7); 2) the decades around the turn from 19th to 20th century saw many changes in production, advertisement and consumption (C. Counihan & Van Esterik, 2013, chp. 7; Piqueras-Fiszman, Laughlin, Miodownik, & Spence, 2012); and 3) Celia Steele’s first broiler house in the 1920s (Page, 2005) became the start of modern day Concentrated Animal Feeding Operations (CAFO) (Imhoff, 2010). As a conservative measure, livestock production now accounts for 18% of CO₂ equivalent global greenhouse gas emissions (Steinfeld et al., 2006), but 50% when considering the entire lifecycle of livestock (Goodland, Anhang, et al., 2009; Oppenlander, 2013, p. 20) - both figures being higher than emissions from the Transport sector². With 1 kilogram of beef requiring 43.000 liters of water (D. Pimentel et al., 2004; See also Foley et al., 2011)³, the livestock sector also takes a significant toll on global freshwater use, and is the largest sectoral source of water pollution (Steinfeld et al., 2006). Modern society is a “risk society” (Beck, 1992). Where *danger* is visible, *risk* is invisible. GMO (Taleb, Read, Douady, Norman, & Bar-Yam, 2014) and the general nature of chemical-use (Jarl, 2010; Carson, 2002) in industrial production are further examples of risk factors, and Bildtgaard (2008) goes on to show how risk has important implications for how we gain trust⁴ in food.

Carolyn Steel shows how our social life around food in the cities also is changing - that the greatest ill of our contemporary foodways is the decline of commensality and its substitution with ready-made food products (Steel, 2013; See also Pollan, 2009). Since 54% of the worlds population now live in urban areas (UN, 2014) this is also important. Urbanization is shown to be a significant factor in the

²See <http://www.epa.gov/climatechange/ghgemissions/global.html>

³See also http://water.epa.gov/learn/kids/drinkingwater/water_trivia_facts.cfm and <http://water.usgs.gov/edu/sc1.html>

⁴See also https://www.youtube.com/watch?v=1PNX6M_dVsK for a complementary view on Trust in the modern world.

obesity epidemic due to nutrition transition (Popkin, 1999, 2001). Aside from the 1 billion people in a state of hunger (Webster-Gandy, Madden, & Holdsworth, 2013, p. 390), there are approximately 1 billion people now overweight (1/3 of who are obese) (T Kelly, Yang, Chen, Reynolds, & He, 2008; See also Yusuf, Reddy, unpuu, & Anand, 2001). W. R. Turner, Nakamura, and Dinetti (2004) argues that the decreased exposure to biodiversity in the everyday worlds of many urban dwellers, will further hinder policies on conservation, leading to further reduced biodiversity and increasingly adverse effects on our own quality of life - since 1970 the Living Planet Index has already dropped by 52%, meaning that the population size of all vertebrate species has halved (WWF, 2014) and phenomena like Colony Collapse Disorder also points to adverse impacts on insect populations (Henry et al., 2012). Steffen, Crutzen, and McNeill (2007) use the term “anthropocene” to signify the effect that human activity is now having on both the ecology and geology of the world in a geological time scale. The list of global-scale critical food issues is indeed long (Gustavsson, Cederberg, Sonesson, Van Otterdijk, & Meybeck, 2011; Godfray et al., 2010; Phoenix & Walter, 2009a, 2009b; Cordell, Drangert, & White, 2009). In taking a more positive perspective, research on the topics of energy consumption, nutritional and social value also shows that: 1) plant-based foods are less energy demanding than animal products, favoring plant-based diets (Cuellar & Webber, 2010; D. Pimentel & M. Pimentel, 2003); 2) organic food products have higher nutritional value (Baranski et al., 2014) and leaves a less degraded ecological footprint ; 3) commensality can reduce carbon energy footprint (Clear, Hazas, Morley, Friday, & Bates, 2013), improve eating habits (Fischler, 2011) and strengthen families (Forthun, 2012); 4) there is still debate on the effects of food localism, with Coley, Howard, and Winter (2011) arguing that it is not enough to look at food miles in isolation but also modes of transportation which makes the recommendations less clear cut.

While predictions for the future are bleak⁵, we dont see any reason to be all Malthusian or neo-luddite about it. It is safe to say that there are some issues in the contemporary world that could be improved. The many-faceted and interrelated nature of food as part of the global ecosystem, and the spectacle of the modern world in which food is consumed, fits very well to the concept of a “wicked problem” (Kolko, 2012; Buchanan, 1992). As Davies (2014) points out, “technological advances in production alone are unlikely to generate the significant transformations required to construct more sustainable urban future food landscapes.”

This forms our arguments of why work within foodways and ICT is important. With a pun, we could say that there are 400 ppm⁶ reasons for designing services

⁵See <http://reports.weforum.org/outlook-global-agenda-2015/>

⁶See <http://400.350.org/>

to make our foodways more sustainable or secure.

1.2 Related Work

The diversity of the role and the impact that food plays in our daily life is diverse in type and scale(J. H.-j. Choi & Blevis, 2010), thus its is inevitable and natural that there is connection between food and technology. Human Computer Interaction (HCI) established itself as an important area of study. Its strength is in a human-centered design approach, taking usability concerns into account in the development of products/services. It is concerned with the design, evaluation, and implementation of interactive systems for human use in their actual surroundings. It aims to ensure that systems are easy to use and easy to learn which is a requirement of many of today's systems (Benyon, Turner, & Turner, 2005). There has been a large amount of research about food and HCI. A number of them has been about the perceived problems that individuals encounter with food itself, such as uncertainty, distraction, inefficiency, inexperience, and inadequate knowledge of nutrition (Grimes & Harper, 2008). Here the focus is on individuals who need help in decision making. Svensson, Hook, and Coster (2005) addresses this with an application that assist users in choosing meal recipes (See also Svensson, Hook, Laaksolahti, & Waern, 2001). Wagner, Geleijnse, and van Halteren (2011) approached it by designing a context-aware kitchen that offers recipe retrieval. Managing multiple tasks in relation to unexpected events during the preparation of a meal, is also an issue that individuals encounter. Tran, Calcaterra, and Mynatt (2005) approaches it by designing a system that helps individuals retain evanescence of a recent activity by capturing a visual record of it. Hamada et al. (2005) approaches it with a cooking navigation system which “enables even novice users to execute complicated tasks such as cooking several recipes in parallel.” Inefficiency is seen as a problem for some individuals who have difficulties in food preparation. Bonanni, Lee, and Selker (2005) addressees it by an augmented kitchen which provides information to coordinate and instruct cooks on the use of the kitchen. The information is projected onto various surfaces such as refrigerator doors, cabinets, and drawers. Sato, Watanabe, and Rekimoto (2014) addresses it by MimiCook, a system which navigates a user gradually by facilitating active user input via navigation directions onto objects such as a kitchen counter, utensils and ingredients based on recipes, thus users avoid wrong usage of ingredients and utensils. The CounterActive uses step by step cooking instructions by projecting multimedia recipes onto a touch panel-kitchen counter (Ju, Hurwitz, Judd, & Lee, 2001).

Even though promotion of healthy eating has raised general awareness, most people are still unaware of which specific ingredients are considered healthy or they

have limited knowledge about food nutrition and health. For this reason Mankoff, Hsieh, Hung, Lee, and Nitao (2002), Plotz, Moynihan, Pham, and Olivier (2011) have developed applications that will help inform individuals. Mankoff et al. (2002) address it by developing a system that analyzes grocery receipts to generate suggestions about healthier food items, thereby pointing out missing nutrients and improving the users understanding of nutrient consumption. Chi, Chen, Chu, and Chen (2007) also attempts to provide users with information about the nutritional value of ingredients that are being used in the meal preparation in order for users to make healthier decisions. Their system used sensors to detect cooking activities and provided digital feedback to users regarding the nutritional information. Aberg (2009) approaches it by designing a system which plans meals and recommends suitable food recipes based on variables such as: nutritional properties, cost, taste, available food items, etc., and uses this to individualise recommendations for each user based on their economic situation and taste preferences. Narumi, Ban, Kajinami, Tanikawa, and Hirose (2012) approaches it with augmented reality designed to influence the sense of satiety (by changing the perception of food volume) and thereby effect nutritional intake. Noronha, Hysen, Zhang, and Gajos (2011) uses a system called PlateMate which allows users to upload photographs of food and receive nutrition estimates.

A common theme for all of these projects is that they are *situational* - designed to be used in a situated setting. In the next section we will present a comparison of our design solution to some of these projects, and also projects that are *interconnecting* - designed to connect people with other people and/or information specific to other people.

1.3 Comparison of Projects

From the enumerable ways in which food is being used, it is no wonder that the number of projects (digital and non-digital) around food commensality are vast. We identified several research projects as well as approximately 100 current projects with or without a web-presence. In figure 1-1 we compare our project against 25 other projects that were selected to display diversity⁷.

From creating offers of dinner (commensality) on Facebook, Meetup, EatWith or MadRouletten; to leftover-food exchanges with DinnerSurfer or LeftOverSwap; to submitting or finding food reviews or recipes on Cookpad or Tastemade; to dinner-based dating via RunningDinner; to authentic tourism and cuisines via Vayable and airBnB; to realtime restaurant booking on OpenTable or just booking of a chef for in-house service on KitchenSurfing; to thematized popup dinners around the concept of 'chic picnics' or more serious issues of food waste awareness using Dinér En Blanc and reGastro respectively; to cooperative efforts centered around food co-ops, charity via KhFF, Kokkeriet's "En til væggen" concept or the weekly soup kitchens (Volxkuche) hosted by Ungerøn Copenhagen and

⁷Remaining projects were:

APPROPRIABLE TOOLS: twitter.com, craigslist.org, groupon.com, foursquare.com, evite.com, maplantis.com

CHEF BOOKING: kitchit.com

POPUP DINNERS/UNDERGROUND SUPPER CLUBS: restaurantday.org, theghet.com, facebook.com/festen.gaesten, facebook.com/6tilbords, supperclubfangroup.ning.com, hushsuperclub.com, bbcamerica.com/jamies-american-road-trip/guide/season-1/episode-3/, supperclub.com

COMMENSALITY: cookening.com, mealsharing.com, plateculture.com, eatincommon.com, cookisto.com, modmigmadklubben.wordpress.com, cookapp.com, eatfeastly.com, Cook & Eat Together (Uppsala Project), dosuperb.com (formerly GrubWithUs), facebook.com/GrubTonight, dyne.com, newgusto.com, surfingdinner.com, mealshare.org, mealsharing.de, homedine.com/mobile, kitchenparty.org, grubclub.com, shareyourmeal.net, neighborgoods.net, philosophydinners.org, tallerkenhøjde.dk, conflictkitchen.org

FOOD EXCHANGE: onefinemel.co.uk (formerly eatro.com), just-eat.com

COOPERATIVE EFFORT: ampleharvest.org, foodcycle.org.uk, foedevarebanken.dk, UN World Food Program, sharefoodbringhope.org, fareshare.org.uk, foodshare.co.uk, foodshare.org, faresharecoop.org, foodsharer.de, foodshare.com, foodshare.net, sharefoodprogram.org, foodnotbombs.net, byhoest.dk, eatlocalgrown.com, e-agriculture.org

VOLXKUCHE: Bolsjefabrikken Ragnhildgade, Kraftwerk Valby, Folkets Hus Stengade, Kafa-X Korsgade, Cafe Bumzen Baldersgade, Støberiet Blågårds Plads, Loppen Christiania, Cafe N Blågårdsgade, Cafe le Rouge Nørrebrohallen, Folkekøkken Vesterbro, Korsgadehallen Korsgade 29

TOURISM: bookalokal.com, couchsurfing.org, voulezvousdiner.com, sidetour.com, socialeaters.com, nativefoodie.com, dinewithhalocal.co.za, eatwithhalocal.socialgo.com, dinewithlocals.com, meetthedanes.dk, likealocalguide.com, dinewiththedutch.com

DATING: dinnerdating.club, brunchdaters.dk, dinnerdates.com, londondinnerclub.org, dinnerdate.com, onlylunch.co.uk, letsodinner.co

GAIA Lisbon; and finally to the specialised research projects exploring new aspects or modalities of Human-Food-Human-Computer Interaction in FridgeMatch, ServeDish Table, CoDine, Food Messaging, 4Photos and PersonalChef (Kera & Sulaiman, 2014; Wei & Nakatsu, 2012; Wei et al., 2011; ten Bhomer, Helmes, O'Hara, & van den Hoven, 2010; Mennicken, Karrer, Russell, & Borchers, 2010). The options are many and each project does it a little different from the others.

Project name	Primary function	What does it let users experience? (end goal of project)	How does it let users experience? (senses, interfaces, touchpoints)	Description	Alexa Site Ranking (November 12, 2014)
					2 (US 2)
facebook.com	Social networking tool	interconnectedness	visual, auditory (TOR-accessible website, smartphone app, USSD dumbphone interface)	Allows members to share and communicate about their life from day to day	875 (US 286)
meetup.com	Community mgmt tool	goal/interest-based interconnectedness	visual (website, smartphone app)	Allows members to form groups around common interests tied to geographic locations, and arrange meetups	326 (US 138)
airbnb.com	P2P lodging rental	logging at locals (authentic tourism)	visual (website, smartphone app)	Allows members to find or offer private paid lodging	907 (JP 25)
cookpad.com	Recipe Forum	information retrieval (recipes)	visual (website, smartphone app)	Allows members to submit and discuss recipes and other food/health issues	172,499 (US 62,914)
tastemade.com	Review forum	information retrieval (food/restaurant reviews)	visual (website, smartphone app)	Allows members to submit food/restaurant reviews in short videos	1,891 (US 410)
OpenTable.com	Restaurant booking	booking of restaurant seats	visual (website, smartphone app)	Allows peers to book seats at restaurants in realtime	90,414 (US 52,735)
vayable.com	Tourism	booking of locals (authentic tourism)	visual (website, smartphone app)	Allows members to find or offer local tour guides	93,990 (US 26,625)
kitkensburging.com	Full-service in-house	booking of chefs (in-home restaurants)	visual (website)	Allows members to book a chef to cook in their home	151,446 (AU 13,186)
dinerenblanc.info	Popup dinner	thematized popup dinners (BYO)	visual (website)	Allows members to attend in large-scale popup dinners/chic picnics dressed in white	- not listed
reqastro.dk	Popup dinner	facilitated popup dinners from (and around the topic of) food waste	visual (website)	Allows members to join popup dinner events made from food waste	- not listed
eatwith.com	Commensality	commensality	visual (website, smartphone app)	Allows members to find or offer paid/free dinner parties	82,971 (US 49,248)
madrouetten.com	Commensality	commensality (of max 6 participants)	visual (website)	Allows members to find or offer paid/free dinner parties with max 5 guests	- not listed
leftoverswap.com	Food exchange	grocery access (user-generated information on leftovers)	visual (smartphone app)	Allows members to lookup/submit location-based leftovers for exchange	1,418,784 (US 423,703)
dinnersurfer.com	Food exchange	grocery access (user-generated information on leftovers)	visual (website)	Allows members to lookup/submit location-based leftovers for free/paid exchange	2,510,260
runningdinner.dk	Dating	dinner-based dating	visual (website)	Allows members to date as a group by attending participatory 3-course meals at 3 different hosts	4,065,123
"En til væggen" (Kokkeriet, Copenhagen)	Charity	hosted free-dinner for homeless	visual, auditory, immersive (location, press coverage, staff)	Allows restaurant goers to perform 'one for the wall' - paying the meal for people in need	2,635,865
kbiffi.dk	Food cooperative	grocery access, hosted commensality (cooperative, Volksküche)	visual, auditory, immersive (website, location, members)	By volunteer work, members can purchase organic groceries at discount	
Folkeøkken (Ungern Copenhagen)	Squat/Collective	hosted commensality (Volksküche)	visual, auditory, immersive (website, location, members)	Allows anyone to attend periodic vegan people's kitchen	
Jantar Popular (GAIA Lisbon)	Environmental NGO	hosted commensality (Volksküche)	visual, auditory, immersive (website, location, members)	Allows anyone to attend periodic vegan people's kitchen	
FridgeMatch (Kera 2014)	Research project	impromptu dinner events based on user leftovers	visual (Facebook app)	Allows Facebook users to be matched with others for impromptu dinner based on their submitted data on leftovers	
Servedish Table (Nakatsu, Wei 2012)	Research project	mediated commensality (serving)	visual, tangible (gesture sensors and actuators)	Allows users to perform remote serving of dishes and send tablecloth messages or edible food messages	
CoDine (Wei 2013)	Research project	mediated commensality (serving, tablecloth messaging, food gifting)	visual, tangible, gustatory (food printing app and edibles, gesture sensors and actuators)	Allows users to perform remote serving of dishes and send tablecloth messages or edible food messages	
Food Messaging (Nakatsu, Wei 2012)	Research project	food gifting (edible messages)	visual, tangible, gustatory (food printing app and edibles)	Allows users to send edible messages	
4Photos (Böhmer 2010; Böhmer 2012)	Research project	phototalk, storytelling	visual (multi-display)	Allows users to tell stories of previous events, recalled by visual cues	
PersonalChef (Menickien 2010; Buytix 2013)	Research project	guided cooking	visual, auditory (multi-monitor)	Allows users to cook with the help of a personal guide	
Kitchy (Henckel, Matovu 2014)	Research project	commensality, topicalised-talk, storytelling	visual, auditory (SMS, talking box)	Allows users to find and offer free/paid dinners based on food-preferences, and during communal meals, to tell stories based on audible cues	

Figure 1-1: Comparison of selected projects.

Our project (listed at the bottom of figure 1-1) stands out from the others in two ways: 1) with regards to the visual aspect of the service representation we present an SMS interface and a physical table centrepiece; 2) with regards to the auditory aspect of the service, the physical table centrepiece constitute an interface whereby certain audio patterns during dinner, triggers actions of speech synthesis whereby the service provides a cue for participants for something to talk about. In that sense our project incorporates both the “interconnecting” properties of EatWith and similar, and the “situated” properties of the 4Photos project, using a matching-methodology similar to that of the FridgeMatch project, but on a different criterion.

Being an SMS-centered application has its advantages and disadvantages. To take the advantages first: 1) SMS, being merely string-based exchanges, adapt their representation based on the users mobile device and setup. Accessibility is therefore target-dependent rather than source-dependent. People with disabilities are able to adjust the representation to suit their needs much easier than if interaction had been served over a website is our opinion⁸ (Clarkson, Dong, & Keates, 2003); 2) SMS, being a GSM-based technology the geographical coverage is larger than internet coverage (not accounting for Satelite-based internet or GSM); 3) user adoption and appropriation of SMS is currently higher than internet-based communication interfaces (Sanou, 2014). Of disadvantages we first note that SMS messages are limited by design to 140 characters in 8bit (most European languages) and 160 in 7bit (ASCII American) and 70 characters in 16bit(East-Asian languages)⁹. Most modern feature phones and smartphones incorporate a feature to send or receive a stack of up to 3 8bit SMS messages that will be displayed as a single message, however if the receivers phone does have this feature, a stacked message will expand and appear as three individual messages instead - this is thought to be a source of inconvenience for the end user. For that reason (and because of fluctuations of network stability and client availability, wherein SMS messages can be lost or delayed), employing SMS as a touchpoint constitutes other challenges than internet-based technologies do. The risk of SMS being lost increases when network activity increases dependent on the network structure. Another disadvantage of SMS is that it is more susceptible for eavesdropping and 3rd parties obtaining private information. The case of SMS being string-based and not possible to carry images over, represents another set of pros and cons as we see it. All internet-based commensality services rely heavily on highdefinition (in the McLuhan sense) media to catch users attention and interest, and guide their food choice. We argue that insofar as a user signs up to the SMS service, we already have their attention and interest. With respect to food choice we argue

⁸See <http://www.w3.org/WAI/>

⁹See <http://www.unicode.org/Public/MAPPINGS/ETSI/GSM0338.TXT>

that the (almost universal) requirement in existing services to submit a picture of the food served, before the meal is actually prepared, sets a high margin for participation and makes it difficult to manage guests expectations also because it presents only a narrow perspective of an immersive experience. Furthermore, profile pictures allows for digital discrimination as research has shown in the case of AirBnB (Edelman & Luca, 2014). These aspects are non-existing due to the design-choice of using SMS as the medium for interaction.

Being a physical table centrepiece with an auditory interface likewise has its advantages and disadvantages. Here the most similar project is the 4Photos project. Similar to the 4Photos project is that we want to enhance the experience of commensality by cueing for “mementotalk”. Where cueing in 4Photos can occur continuously by virtue of using the visual channel, our project can only cue on specific times since cueing on the auditory channel constitutes an interruption in the scene. We also see a big difference in the forms of talk afforded by the two approaches. Where phototalk as cued by 4Photos is clearly ostensive, allowing users to point and center their collective attention towards the same external object, mementotalk as it occurs in our project is centered around the orator and thereby necessitates more of a willful effort of participants to direct attention and display interest while storytelling occurs.

A trend towards situated information appliances is beginning to take form¹⁰ and how they will shape the product market will be interesting to see.

1.4 Chapters of the Report

The Methodology chapter will present our overall approach and some of the methods employed.

Immediately after that, the bulk of the project will be presented in the Process and Analysis chapter. Here we go through each of the four phases of this project, interchanging descriptions of events with analysis of events. The four phases can briefly be summarized as: 1) An interviewing and brainstorming phase; 2) A prototyping phase around the problem of getting users to adopt (Anacleto & Fels, 2013) a service by utilizing various media (McLuhan, 1994); 3) A prototyping phase around the problem of using a situated information appliance (Norman, 1998) to facilitate storytelling behavior (O’Hara et al., 2012) of participants; and 4) A prototyping phase around the problem of gathering reviews from participants. All names of participants in the report are anonymised.

The Findings chapter lists all the main findings of this process and analyses what they mean for the design. While all agree that eating with others is nice,

¹⁰See <https://fresh.amazon.com/dash/>, <http://www.amazon.com/oc/echo>, <http://www.helloivee.com/> and <http://www.theubi.com/>

eating with unacquainted others typically requires a stated purpose (being adventurous alone or with a friend, networking, food tasting, etc.)

The chapter on the Design Solution presents the proposed design and explains some of its features, discusses it and presents the evaluation of it as based on experience prototyping with users.

The Discussion discusses the anthropological aspect of eating together and how that process resembles a ritual. Then the chapter reflects on the project in relation to other projects and brings forth further perspectives.

The Conclusion brings it all together in terms of the research objectives stated. The role of communication in commensality is summed up and it is presented how the proposed service embodies it as an information appliance.

Chapter 2

Research Methodology

The methodology for this project is founded in Design Research. The development process is iterative in that the external feedback we get from our design artifacts is used to refine our internal models and redesign new artifacts to end up with a final design solution (Eg. Buxton, 2007; Benyon et al., 2005; Moggridge & Atkinson, 2007, Chp 1). Switching between deductive and inductive forms of reasoning along the way.

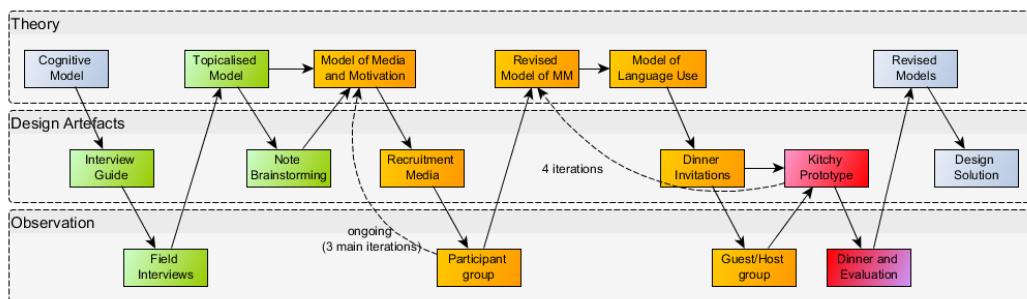


Figure 2-1: Methodological process as inspired by Mackay and Fayard (1997)

Figure 2-1 illustrates the process of this project using the conceptualisation presented in Mackay and Fayard (1997), triangulating HCI between Natural Sciences and Design disciplines. The four different colours are indicative of the four consecutive phases presented in the next chapter.

In the first phase of our research we have employed the methods of ethnographic field-studies using interview guides. The reason for doing an interview-series instead of a fly-on-the-wall, focus groups or questionnaires, is that we wanted to be as situated to our subjects as possible with as little overhead as possible - with an interviewing knocking-doors approach it was possible to sample a geographical area and sometimes see our subjects dining room, without having made prior

arrangements. Participant observation is the most comparable approach to what we wanted to achieve, but the open-ended explorative nature of this approach did not lend itself well to the cognitive models we started out with.

Our interview analysis is based on 20 people at four different locations around ITU, corresponding to four different rent-levels that partly correspond to differing socio-economic status. The four locations constitute a Case Study research and each location is studied as a mini-ethnography. Interviews are coded towards identifying themes rather than in-vivo codes or transcription analysis. Codes were then clustered and affinity diagrams could be created.

For the ideation, we used notepad brainstorming to likewise create clusters and affinity diagrams of these.

In our subsequent three phases we employed an iterative design process in which we considered as design artifacts, both our final physical design object as well as the media and messages used to interface information to and from participants. Our main design artifact is “information” and the design process is based on sketching of information-models and different media to arrive at our final design proposal. In this respect we used scenario analysis, and conversational analysis (Szatrowski, 2014, chp. 1), Journey Maps and Wizard of Oz (both as a laboratory experiment and a field experiment (Mackay & Fayard, 1997; McGrath, 1995; Runkel & MacGrath, 1972)) to find out what worked and what didn’t based on interpreting User-Sketch interaction and feedback obtained in Questionnaires and in-situ. We haven’t employed paper/video prototyping, formal usability studies nor design walkthroughs due to the type of design artifacts we centered the project around and the non-obtrusive relation we wanted to keep with participants. The project in this sense can be seen as an exploration of the minimal requirements on information to ensure user participation.

Anacleto and Fels (2013) speaks of the necessity to extend the design cycle when it comes to the field of Natural Interface Design to also incorporate a phase of Adoption and Appropriation as factors in the refinement of design artifacts. Natural Interfaces stand apart from others in that artifacts are designed to: 1) minimize disruption to existing workflows; 2) maximise appropriation in other contexts. Point 1, minimizing disruption to existing workflows, can also be seen as one of the guiding principles behind our chosen methodology. Point 2 is a desirable feature, but not something we can argue on within this project.

Based on the analysis of video recordings, communication from the dinners, and feedback from participants, a final proposal is presented and discussed together with other perspectives. The final design proposal is illustrated by use of Service Blueprinting.

Throughout the report, themes from different phenomenological and pragmatic fields will be brought in to cast perspective on observed phenomena and contexts.

We will use the concepts of “Scenes” and “Settings” from Hymes (2001) to refer to the cultural and physical circumstances respectively, of a given “event” or speech act(Szatrowski, 2014, chp. 2).

Chapter 3

Process and Analysis

3.1 Phase 1: Hunting for Information

The approach to describing each of the 4 phases of this project will be by alternating between descriptions of events (actions done or things observed) and reflections about those events where relevant. In reflecting on events we will follow a general style of taking a horizontal approach followed by a vertical approach. That is to say, first we will give an 'overview' of the event, highlighting superficial features before going deeper 'into' the event itself, digging out the various particularities surrounding it.

Foundation

Our earliest research question framed the project in a two-fold approach that first would seek to investigate the phenomenon of solitary meals and its implications in the modern world, and use this research as evidence for pursuing an experimental and exploratory study of how ubiquitous computing and service design can serve to enhance commensal mealtime events.

Over some meetings, we quickly realised that 'researching the phenomenon of solitary meals and its implications in the modern world' is a full-fledged research programme in itself and we couldn't hope to arrive at any significant contribution to that field within the limited period of this project. For that reason we decided to take the former as one hypothetical argument out of several arguments found in literature, and go ahead focusing our resources on the experimental, exploratory and user-centered design of an ICT service. With this in hand, we proceeded to the first step in an iterative research and design project - user research. Using an Interview Guide¹ (Creswell, 2007; Kvæle & Brinkmann, 2009) to help us get a feel

¹See McNamara 2009 at <http://managementhelp.org/businessresearch/interviews.htm>

of the realities facing people in their everyday world and why and how commensal food events occur or do not occur.

Initial Interviews

Compared to other types of user research (D. W. Turner, 2010), we quickly decided on the Interview Guide approach because it allows us to go out into the real context of people and gather information as an explorative dialogue with the subjects and their actual environment. An Informal conversational-type Interview we feel would be too loose as we don't have prior experience with that style. Standardised open-ended interview would have been too rigid for us and delayed the time at which we would be ready to begin the interview series. We generated almost 100 questions for the Interview Guide, divided into 11 topics that we perceived as distinct prior to the field study. These topics were: 1) Food; 2) Eating habits; 3) Non-physical aspects of food; 4) Food waste; 5) Eating together; 6) Guesting; 7) Hosting; 8) Special experiences; 9) Strangers; 10) Usage of the service; 11) Neighbours (see appendix A.1). To avoid wording variation of questions that can occur when multiple researchers are conducting a series of interviews, we assigned one person consistently to conduct the interviews while the other records it. When the interview was coming to a close we asked if they wanted to participate in the Wizard-of-Oz tests which we had planned. The interviews took place over four days from March 16th to March 20th and we interviewed a total of 20 people from four different residential areas reflecting four different rent-levels:

Figure 3-1 shows the four locations we visited. While the apartments on Kaj Munks Vej and Peder Lykkes Vej were all-purpose rental accomodation completed in 2004 and 70s respectively², Tietgenkollegiet and Grønjordskollegiet were dormitories that only students are allowed to rent and similarly completed in 2006 and 1970 respectively.

It was four very different residential areas. The two first (Kaj Munks Vej and Tietgenkollegiet) are recent buildings with a modern focus blending form, function and feel to match current demands for residential, social spaces and aesthetics. Tietgenkollegiet in particular is designed for pro-social behaviour by the architects³. The apartments on Kaj Munks Vej are five story tall, with balconys arching out, and the staircase corridors standing between glass fronts and backsides. White tapestry walls enclose the entrance to each apartment. The acoustic is transparent but slightly dampened by the tapestry perhaps, not accentuated or distorted by the interior. By virtue of being new, or attractive or both, these two areas carry the higher pricetag of the batch of locations. The two later (Grønjordskollegiet

²See <https://www.ois.dk/>

³See <http://tietgenkollegiet.dk/bygningen/>

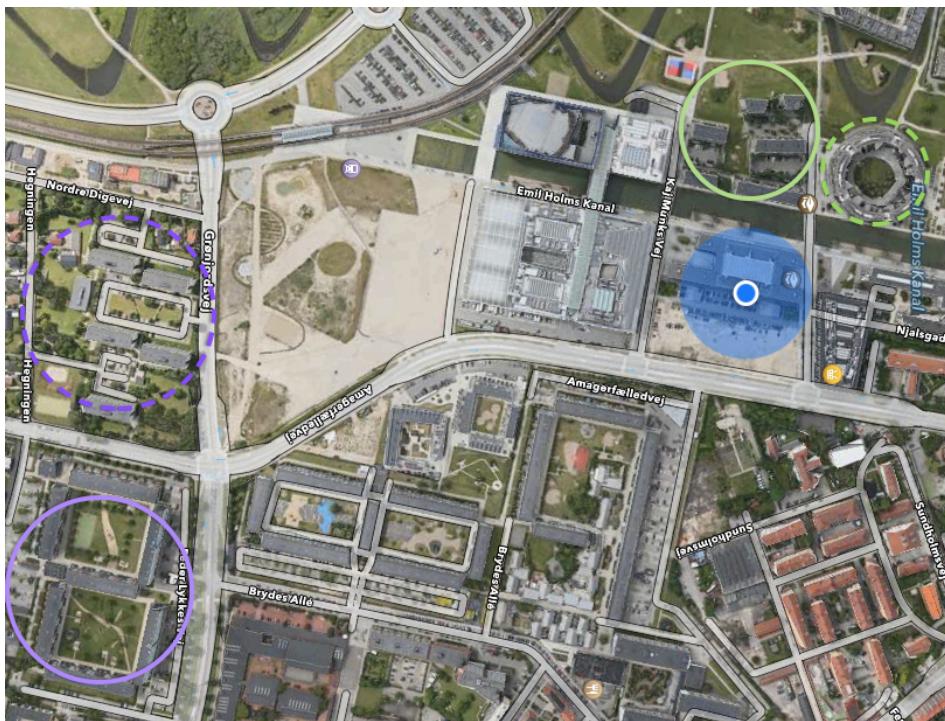


Figure 3-1: Map of interview locations. Dotted circles indicate dormitories. Green circles are high-rent locations. Purple circles are low-rent locations.

and Peder Lykkes Vej) were built in the 70s with a very different style compared to today⁴. Entering the buildings on Peder Lykkes Vej one is met with a fluorescently lit, concrete corridor that twists around a corner before the staircase to the upper stories - the door slams with hydraulically-accentuated force behind you. The acoustics is accentuated by the metallic concrete walls and talking in the corridor or staircase produces a metallic reinforced echoing. The only window and source of natural light is in the ceiling, visible only on the top part of the staircase. With regards to being in-situ with interviewee subjects it is worth noticing that we were only inside the home of 2 out of 20 subjects. In 5 situations we conducted the interview just outside of the subjects main-door, but in the remaining 13 of the 20 interviews the interview was conducted in a common, public setting. In retrospect it would have been good to consistently augment the verbal information we received through talking, with visual information about the subjects actual kitchen/dining room (Goffman, 1989), and asked more questions around their everyday practical arrangements of making food. That would have allowed us to better ground our later sketching and concept generation stages because we would

⁴See http://www.gjk.dk/UserFiles/Image/politiken_tekst.jpg

then have a quick repository to use as Evidencing⁵ (Moggridge & Atkinson, 2007, p. 423). In our interviews we sought to have equal male/female representatives at each location.

On approaching each interviewee, we had prepared our presentation according to the eight principles highlighted in Creswell (2007). It goes for both of the student dormitories we went to that these places, virtually are sealed off for anyone who doesn't have a key. For that reason we couldn't go and knock individual doors. Instead we were able to locate their public rooms (mail rooms, reading rooms, gym, computer rooms, laundry rooms, bike storage rooms) and the flux of people going in and out of these places constituted our group of interviewee subjects. For the apartments on Kaj Munks Vej and Peder Lykkes Vej the story was a little different. In the former we would go ring door bells and get a positive reply approximately 1 out of 5 times. At the latter, ringing doorbells only gained entrance 1 out of 10 times approximately. We found two subjects at Peder Lykkes Vej in this manner and found the remaining three by approaching them as they were walking around between the buildings. Each interview would be between 15min to 45min with 24min being the median. We also had one interview that was only 10 min long but that was due to an interruption, it was a family man who had taken a moment out while the kids where afternoon resting but had to return on request of his wife.

As researchers in approaching an interviewee, we try to understand, empathise and see things from our subjects point of view instead of coming with our own assumptions and preconceptions, and when they talk we try to pay attention and ask about *invisibles*, things that people don't pay attention to, things that are disregarded and ignored as irrelevant or unimportant - like whether a friend has sent a dinner invitation through Facebook or via SMS. On a purely subjective note, we found that there was high similarity among the students from the two dormitories. Both would hold self-organised neighbor-dinners with the others on their floor or from other floors (a *rotating dinner* concept where each member takes turn in hosting). Both reported variation in the frequencies of these neighbor-dinners, on some floors they could dine together multiple times a week while others were fine with dining once a month. The similarity of reports from both dormitories shows that this behaviour was irrespective of their monthly rent. They also seemed to exhibit same behaviour with regards to dining with their individual friends, partners and family members. They report that at times they would feel a desire to reclude in private or to go eat with people outside the dormitory or have people from outside the dormitory come eat with them at the dormitory. For the interviewees from the two regular apartments however, we observed a bigger difference that maybe can be attributed to the price difference in rent, but also to their living location. The lower rent at Peder Lykkes Vej allowed even for a student

⁵See <http://www.servicedesigntools.org/tools/43>

to have a single apartment. The tenants we interviewed at this location were mixed couples, families and singles. All the tenants we interviewed at Kaj Munks Vej were families or couples, indicating that the rent-level makes it infeasible for singles to live here.

In hindsight we think we could have cut down our questions to 30 instead of 100 and made them more abstract as to allow more variation in the answers that people could give, providing us with more stories and narratives that we could notice. Many of the questions we had, were also either very long such as "If you are invited for dinner at a friends home, but you don't know any of the other people coming, would you go?" or conditional upon the answer to a previous question "Would you go if another friend was also going?". These characteristics made it sometimes difficult in practice to make the interview progress smoothly. After some interviews with family members we also came to realise that our questions about 'blind dating' were a kind of no-go topic so we quickly canceled that out from subsequent interviews (all these minor adjustments made in-situ, appears in appendix A.1).

The interviewees provided a lot of varied information. When talking with them about the service, some would say that it reminded them of other existing services. That way we were informed of the existence of the following services: 1) Evite - a service that lets people create and manage electronic invitations⁶; 2) RunningDinner - a dating service concept where 4 matched couples partake in a 3-course meal at 3 different locations arranged by the participants themselves⁷; 3) Festen og Gæsten - a service initiated by a radio program on DR P3 by which people can announce their New Years party so that others can join⁸; 4) Madklubben - franchise presented to us as a member-run restaurant club⁹; 5) 6 til bords - a private initiative where people can subscribe to his Facebook page and then once in a while he would create a dinnerevent where people could just come and cook and eat (initiated in the beginning of 2013, had 3 dinner events and now appears to be defunct though app. 1000 people have subscribed)¹⁰; 6) a Jamie Oliver show on underground supper clubs¹¹; 7) a 2-for-1 deal at Dalle Valle Cafe¹²; 8) Islands Brygge Kulturhus public commensal meal offers¹³.

⁶See evite.com

⁷See runningdinner.dk

⁸See facebook.com/festen.gaesten

⁹See madklubben.dk

¹⁰See facebook.com/6tilbords

¹¹See bbcamerica.com/jamies-american-road-trip/guide/season-1/episode-3/

¹²See <http://www.cafedallevalle.dk/amager.html>

¹³See <http://kulturogfridtid.kk.dk/kulturhuset-islands-brygge/aktiviteter/>

Interview Coding

Upon returning to ITU with 9hours of interview we embarked on the task of coding and clustering (Creswell, 2007). We did not use “a priori” codes (Creswell, 2007, p.185) in this investigation because we wanted our collected interviews to speak for themselves. We would listen, both of us, to the tapes and write down small phrases and expressions, and mark the postits with the number of the interview so we could track and backtrack. Using four differently coloured highlighters, we coloured the postit notes so we could get a visual overview of how or if codes correlate with the four locations (see figure 3-2). The codes we ended up with are a mix of in-vivo codes and non in-vivo codes (Creswell, 2007, chp. 8). That we were two people coding increases the coverage as we pick-up on different things, but at expense of duplicates. Suddenly we had accumulated 1000 post-it notes and found ourselves in a situation similar to the 1000 page data dilemma highlighted in Kvale and Brinkmann (2009, chp. 12). Stuffed with information (E.g. Rangaswami, 2014), slowly trying to digest. After filtering out duplicates and deprecating codes that were judged irrelevant, we were down to 600 codes and proceeded to the task of clustering to produce Themes.

In interpreting meaning from the codes we tried as much to center it around the user’s original meaning instead of grounding it in literature (Creswell, 2007, p. 47). We did not however, check up with our subjects to verify that our interpretations were in fact in tune with their meaning. In hindsight, that kind of re-engagement with the subjects at an early stage might have been beneficial also in terms of our subsequent experience prototyping sessions. Based on clustering our codes we identified 6 main themes out of 38 in total (see figure 3-3). These 6 themes are: 1) Daily Life, 2) Motivation, 3) Public Dinners, 4) Important Aspects, 5) Social Variety, and 6) Food Variety.

Thematic Case-Study Ethnographical Analysis

The title of this subsection is rather long and confusing, but in that sense it correlates well to our process of analysis of the interviews. Being novices to the field of real scholarly qualitative research, purely methodological books like Creswell (2007), Kvale and Brinkmann (2009) did not enlighten us sufficiently to really understand how to proceed. Not until we started going through exemplars of qualitative studies like Mauss (1954), Goffman (1981), V. Turner (1995), Szatrowski (2014), Carole Counihan (1999), Heatherton (2000), Carlston (2013) were we able to fully see and grasp what it was all about. Creswell (2007) brings an overview of different methodologies within qualitative research. Our research in this project is ethnographic in the sense that we seek to understand traits of a specific culture-sharing group. It also constitutes a Case Study because we have



Figure 3-2: Colored codes grouped into themes.

spread our research across different distinct locations which each can be considered a Case by which we can contrast and compare across cases. Thirdly, it is Thematic because the “lens” in which we view our ethnographical and case study analysis, is based on the Themes arising from the clustering of codes. Each of the 6 themes constitute a lens by which we analyse the interviews.

In the paragraphs below we will go into each theme and present a Case Study analysis of the different culture-sharing groups. All the analysis will be based primarily on the codes that we have selected and clustered, and to a less extent the individual summaries available in appendix A.2. When we use terms such as ‘the majority/minority of people’, remember that this is a mini-ethnography of roughly 5 people at each location, so the term ‘minority’ often means that there

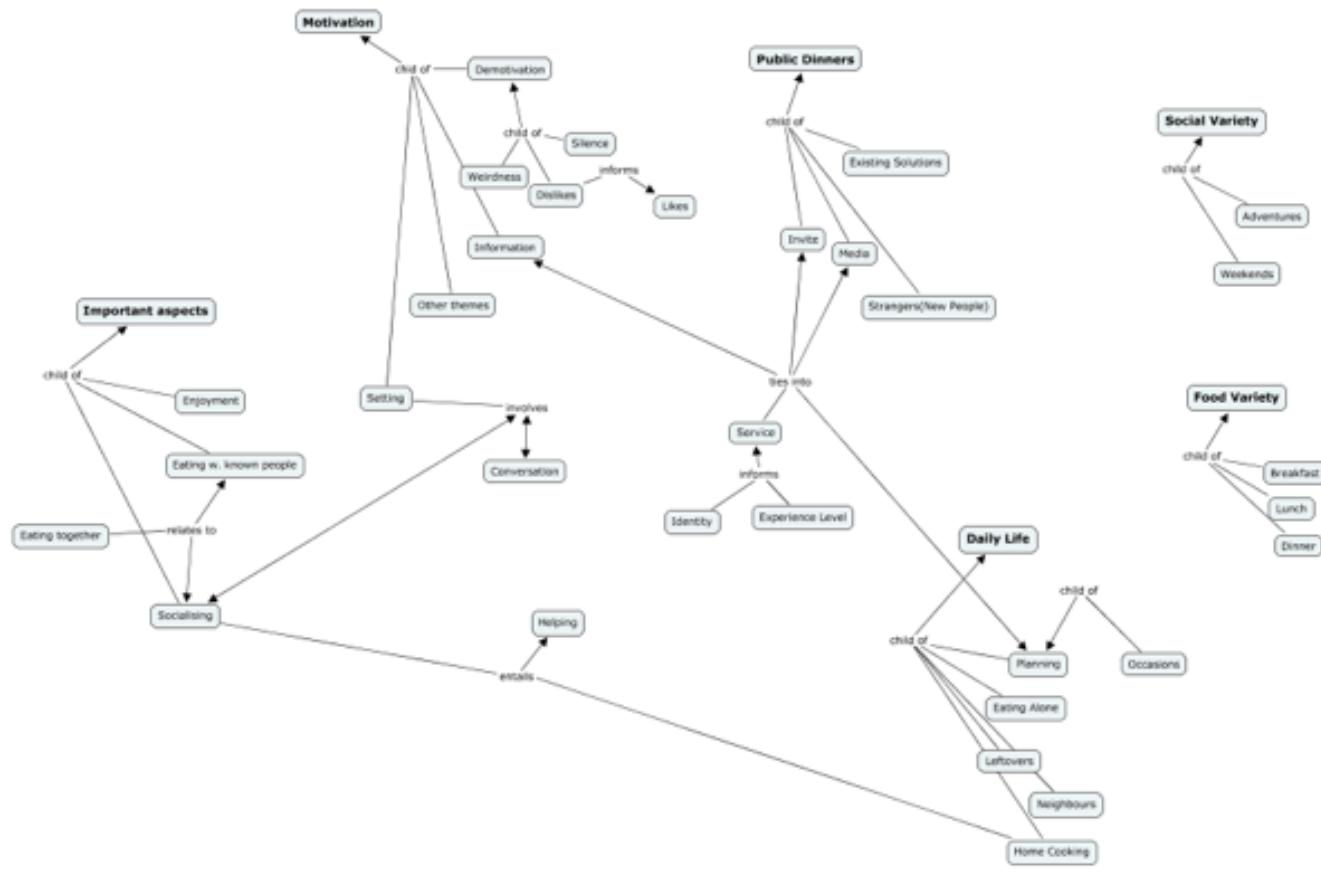


Figure 3-3: Map of all themes identified and their interrelation.

was 1 person expressing a given characteristic. For brevity, the four cases will be abbreviated as KMV - Kaj Munks Vej, TK - Tietgenkollegiet, PLV - Peder Lykkes Vej and GK - Grønjordskollegiet. Worth noting is also that within each dormitory, there are also different cultural-sharing groups due to the architecture of people sharing the same space kitchen.

Theme 1: Daily Life (and food practices)

As Schuetz puts it, “The world of everyday life is the scene and also the object of our actions and interactions.” (Schuetz, 1945, p. 533). He made this comment for the public, shared space, the city in which people play out their lives. But this multiple realities perspective can also be applied to the scenes and settings in which people’s eating behavior plays out. For families or any co-living arrangements that people find themselves in, the intersubjectivity of their daily life is made up of

each persons subjective model of the shared space and their own actions within it (many of which take place within the *home*), and with other subjects in dialogue (Holquist, 2002, chp. 2).

For this theme we had clustered 17 codes. 3 from KMV, 4 from PLV, and 5 from both TK and GK. We chose to be the top-theme, composed of following sub-themes: Planning, Home Cooking, Neighbors, Eating Alone and Leftovers.

People at KMV prefer (from the daily selection of meals) to spend most of their time on the dinner - the main evening meal. That is generally regarded as a central part of the daily life - the place where the family gets together and talks about their day and experiences. Mealtimes are often planned and scheduled because it is a coordination of kids and parents institution-hours. A few of the people here had irregular working hours, but for the majority it seems to be regular. Breakfast and dinner occurring at home as a family (Both parents and Children, or Father/Mother and Children) or couple. While the majority made home cooked food for dinner everyday, and valued eating together as a social experience - being together - a minority ate out 3 times a week favoring the taste of the food, the convenience of not having to cook and the pleasure of eating as driving values.

At TK, there were multiple types of realities co-existing. The daily life for some, consists of eating mostly alone while for others, the rotating dinner arrangement (common to all kitchens, but functioning under different abilities) was made so that they were having common dinner with their kitchen-neighbors 4 times per week. Breakfast, lunch and dinner habits varied a lot. Breakfast and Dinner was generally seen as the two most important meals of the day. A minority reported that lack of money prevents them from making interesting food, and that if they had more money they would eat more out at different restaurants. All of them reported to consume their meals mostly at home or school, but also at their acquaintances outside of the dorm.

Similarly to TK, GK students also reported to consume their meals mostly at home or school, as well as occasional eating at the home of acquaintances outside the dorm. The use of rotating dinners did not seem to be as pronounced here as it is at TK - one person reported that they had a common dinner once a week at their kitchen of 12 neighbors, so he had to cook every 12 weeks.

Planning and scheduling for students at both dormitories was centered around classes and exams and other study activities. For this reason they were also suspect to periods of very irregular eating habits were food-consumption becomes a problem because of time and most wish they could just skip it.

People at PLV had very different daily lives. While one reported to eat 6 meals a day at home on a regular basis (waking up at 4.30 for breakfast, and has last meal at 21), another reported that most of her eating happened at work, where there was a nice cafeteria, and then having a light salad for dinner at home. The

majority though, had a pattern where breakfast and dinner occurred at home, as a family, couple or single respectively. Lunch occurs outside home, at work or school. A minority prepared their lunch at home.

We see many ways the daily life plays out among people with regards to just their food behaviors. People in co-living arrangements like families and couples have strong habits of eating together when they can. Eating together is a social event and they value the sense of *being together* that it facilitates. Both students and families, couples, and singles, plan and schedule (not in an explicit sense, but in a habitual sense) around the institutions they partake in during their waking hours. But for students it appears that these schedules are more apt to fluctuation due to workload relations (deadlines and exams). Three people represented outlier behavior. While one reported to eat 6 times a day with the first being around 4:30 and the last being around 21, the other reported to obtain most of her daily intake at work and only cooking in weekends. Both of these were from PLV. The third was from KMV and reported that they as a couple-in-waiting, ate out or ordered takeaway 3 times a week and thought it important to continue eating out at least once a week when the baby is born.

Theme 2: Motivation (for hosting or guesting unacquainted people)

This theme consisted of 71 codes, 27 from KMV, 19 from TK, 13 from PLV, and 11 from GK. The theme centers around reasons as to why participants would want to either guest or host commensal meals offered by some service. Within it we identified three main types of reasons: 1) Because you are **young, single or adventurous**; 2) Because it revolves around some **Club** or collective unit where participants enter with the same goal (Networking is a part of it, but the majority is the collective performance of individual hobbies/interests where commensal meals plays a secondary role); 3) Because it can be a way of **Friendship-Co-experiencing** where you can bring your friend to try something new together, both as a support and to add to friendship common ground. While in all cases the theme of the conversation was around dinner and eating with others, some subjects also expressed preference for cooking together as well, as an enjoyable extra step.

For people at KMV the majority found their motivation around the concept of a 'club'. The majority of which, envisioned the collective goal of the club as some sort of Networking/Mingling with others for the advancement of career. For others the club could also revolve around goals such as *Childrens' Playgroups, Dogs and Drinks, Dinner with the Elderly* or *Rotating Dinners*. Children Playgroups is rotating playgroup arrangement where children take turns at which home to play in. Commensal dinner could then be an extension to involve the parents collectively as well. Similarly, we were told that *Dogs and Drinks* is an arrangement in the US

where people with dogs can get together. A slightly less group of the people at KMV reported that they would always go to some dinner event if they could bring a friend. And a minority said that they would go individually or as a couple, as an adventure to try something new. Some also pointed out that for them to use it, the service would need to be marketed very well and they should see their friends using it - indicating the characteristics of a late-adopter type of user (Norman, 1998, p. 41).

With respect to the three main types of reasons listed above, students at TK very much fitted the *young, single and adventurous* category. Within this category, they provided us with different lower-level perspectives that shape their individual motivations. While some people took it as an assumption that other users who they would meet through such a service, must have joined because they also are social and like to cook and eat together, others wanted an ability to know something about the others in advance. The knowledge of *circumstances* of the dinner (distance - is it within reach, do I like it to be far away?; duration - is it quicker than doing it myself, do I like long dinners?; price - is it cheaper than doing it myself, would I like to try a feast?; etc.) and of *how many* other participants there will be, seemed to be the two most prevalent themes guiding individual motivation. Some would also go as a way of friendship-co-experiencing.

At GK there seemed to be an equal share of students who were motivated because of a Networking-perspective as there were of those who were motivated by the adventurous aspect of it. Some would also do it as friendship-co-experiencing. With respect to pre-knowledge of the dinner, they were similar to TK, but for the adventurous there was more focus on knowledge of the food as they could see themselves going to a dinner, only because it featured some exotic food like really good lobster.

For people at PLV, there was an equal share of adventurous people and people who would go as a way of Friendship-co-experience. For the adventurous, there were three main objectives: 1) Trying new food (a form of self-governing food tasting sessions); 2) Meeting new people (this can also be seen as a form of Networking); 3) Seeing how other people live. This last aspect was new to us, but all signify focus on the situated experience in total. Similar to KMV, one person noted the need for them to see credibility of the service and that others are using it, before they would consider using it.

We find it interesting to see the concept of a *club* being so profound among KMV while virtually lacking in PLV. Taking what they say at face value, we hypothesise on this based on Maslow's hierarchy of needs(Koltko-Rivera, 2006) and say that a big factor motivating PLV is in looking to fulfill Belongingness needs. MKV is a group looking to fulfill Esteem needs. The students at TK can be understood as seeking the same Belongingness need, but only as factor for

motivation next to an economic factor and a convenience factor. GK seemed to express both the Networking-aspect and for the Adventurous aspect, the food-experience was seen as a sole factor for motivation.

Theme 3: (Behavior around) Public Dinners/Volkskuche

Here we had 28 codes comprising the theme, 10 from GK, 8 from KMV, 6 from PLV, and 4 from TK.

Here we asked people about their experiences with public dinners. While the term “public dinner” can refer to any meal event that is open for the public, the way it is understood in Danish is usually as a Volkskuche (or soup kitchen) as the term “public dinner” is a transliteration of the Danish word “Folkekøkken” which is uniquely identical to the concept of Volkskuche. Other types of public dinners can be popup dinner events or food festivals.

The clear trend for people at KMV is that they don’t spend time searching for public dinners and therefore don’t attend these. For some they attribute the reason is that they have children, and having children demands that you give attention to them, and then the thought of taking the whole family to a public dinner is often associated with a stressful experience. For others it is a sheer lack of time in their everyday life. There were two people who were positively interested in trying a public dinner but just hadn’t have that happen yet.

One of the people from TK had tried attending a public dinner (Volkskuche) - she was studying some night and a person from her studygroup asked if she wanted to go so she went. She doesn’t perceive herself as very social, but she perceived it as a nice and casual way of interacting with others. She hasn’t been to a public dinner since. Neither had any of the other students from TK been to or searched for public dinners.

The trend from TK is the same at GK. One girl had been to a public dinner with her friends who knew about it in advance. Though it was nice, she doesn’t search for public dinners because she is vegan and lacto-intollerant and therefore perceives her outside food choices to be very narrow. Some have heard about food festivals and popup dinners, but hadn’t joined.

None of the people at PLV had tried public dinners nor searching for them, but one person would like to try attending one at some time.

The common note here is that no one searches for public dinners to join. Sometimes they see an advertisement for a public dinner in some media, or overhear someone talking about it, and while this can spark their interest, none have reported to have went by themselves in this way. Two students (one from both TK and GK) have attended a public dinner together with friends when their friends have suggested it to them.

Theme 4: Important Aspects (of how people perceive food)

30 codes made the body of this theme. 12 from TK, 8 from PLV, 6 from KMV, and 4 from GK.

This theme explores some of the different conceptions people have about food. Worth noting is that most often, when you ask people “What is food to you?” and “What is the most important aspect of food?”, their answers will be centered around **Dinner** and eating together. While some just “eat to eat”, others perceive food as “a great joy in my life”.

For people at KMV, food was mostly regarded as a social thing and the most important thing was that of being together during dinner as a family, either talking or not-talking - the shared experience. Then there were two outliers. One person regarded food as pleasure, love, adventurous, mind developing, nutricious, delicious, and time. Another saw it as nutritious only and not something to be in artistic pursuit of.

The students at TK also revolved around the topic of food as social and nutritious, but many other topics also appeared here. Food as a comfort. Food as something that requires respect, and that you take your time to prepare it, and in turn that *cooking together* is important to become part of the dinner. Individual perceptions on food change whether they food is consumed in social or in private scenes - where the same person puts high value on food when it is in a social experience, when they are alone they are more apt to regard food as *just nutrition*.

Different viewpoints were also expressed for the students at GK. Food is a way to show who you are, it is a necessity for survival, and it is a great joy in life, where some of the viewpoints expressed. It was also regarded in itself as just a good experience with all its tastes, smells and feelings.

At PLV, for the couples and families, food was social like at KMV and the most important part is to spend time together during a meal - not texting or TV’ing or computer’ing. For the student here, food was also seen as a comfort - cooking food that his grandparents used to make, made his mood go up if he was feeling down. For one, food was also a ritual - a way of decoupling from a day’s work and just relax.

The trend here was that people’s perception of food is influenced by their social configuration. Families and couples at KMV and PLV almost uniformly regarded food as a social pleasure, a way of being together. Students perceive food as a social pleasure if it is done in a social group, but for the most part it seemed to be food as nutrition, that you *eat to live*. Food is also regarded as a comfort when you are down, both by a student at TK and at PLV.

Theme 5: (Values of) Social variety

Here we had 8 codes. 5 from TK, 1 from KMV

In this theme people are expressing sentiments with regards to eating with unacquainted people. This also informs and forms part of what was presented as Motivations, but here singled out for specific focus.

For one person at KMV, eating together with unacquainted others was valuable in the sheer sense of meeting others.

Students from TK expressed different values. While for some, it wasn't the verbal interaction with unacquainted others that was seen as a value, the mere being with friends among strangers was, and was seen as a motivation to just get out of the dormitory sometimes - changing patterns, breaking away from the everyday world. For another, meeting with new people in itself was good.

That there were no codes from GK or PLV on this theme is interesting. In clustering we tried to keep duplicates as a statistical measure, but in the pre-filtering of codes prior to clustering we had been taking out 400 codes that were either duplicates or discarded for unusable content. It could be that all the GK/PLV codes pertaining to this theme were lost in that process. But we also see a hypothesis explanation to it. The theme of *Social variation* ties well into the themes of *Motivation* and *Daily life*. Here we saw that students at TK had a more frequent routine of rotating kitchen-dinners than was observed at GK - the point being that the pronounced practice of rotating kitchen-dinners sparks an increased desire for distinct social variation. People at GK, PLV and KMV were more 'self-governing' with respect rotating dinner arrangements and able to adapt/balance individual desires to collective desires and therefore didn't experience a distinct need for social variation outside of their own control. We include KMV in the group who do not seek out distinct social variation, as the observation found above, stated a general sentiment which also can be seen to correlate with the motivations stated by GK and PLV. The observation of statements from TK where much centered around "changing patterns" and "being with friends among strangers" highlighting an everyday world in which they see themselves as individuals playing out dinner rituals in an ambiguous relationship to their peers - ambiguity of the relationship here being central in shaping the dialogue between people(Holquist, 2002).

Theme 6: (Values of) Food Variety

This theme had 10 codes. 3 from both GK and KMV, and 2 from both TK and PLV.

There was not enough codes to warrant a comparison between locations in this theme. People generally regard dinner as more important than lunch and breakfast. Breakfast and Lunch each being contested differently in terms of importance.

People also generally prefer home cooked food to takeaway or restaurants, but after this there is a wide variation in individual food tastes and food choices.

Brainstorming

After the coding of interviews, the project took a different path from the path of Interaction design. The Interaction design method describes a 4-step process. (Moggridge & Atkinson, 2007; Buxton, 2007) After conducting Data Analysis, researchers proceed to brainstorm on problems and solutions, ultimately sketching concepts together with users to arrive at a final proposal that addresses the problem. Contrary, in this project and enthralled about the information we had harnessed from the interviews, our minds were running with ideas for new things to research. In that sense we were sidetracked from the “user-centered design” approach to a combination of a “systems design” approach and a “genius design” approach (Krumm, 2009, chp. 6) - switching attention from users to technologies (Norman, 1998). We would use different search queries and track down the line of succession of the various articles we already had, and soon we found ourselves in a state of information constipation with 1000 articles more or less unordered to digest before we could proceed (article repositories such as ACM¹⁴, ScienceDirect¹⁵, ElseVier¹⁶ and specialised search engines like HCI Bibliography¹⁷). In skimming them however, we appended the keyword ‘ToRead’ or ‘NotNow’ and keywords for what part they are relevant for, so that we could later retrieve the articles we found particularly important. The Brainstorm about problems, solutions and scenarios as based on the user research has been a steady undercurrent to the project while we have had our explicit focus on dividing tasks and reading up on literature and doing other desk-based research. We would be reading something in an article or a book, and then we would get an idea for a scenario, a consideration of a possible problem and a solution, and then write that down on a post-it using the date as the ‘number’ (Tom Kelly & Littman, 2002, ”The Perfect Brainstorm”) of the idea. In this way, over time and by adopting the 7 tips mentioned in Tom Kelly and Littman (2002), we gathered around 50 ideas. From these 50 ideas, we again used a clustering approach to inform an affinity diagram¹⁸. From this we selected 3 themes representing different aspects of the service that we wanted to focus on. These are shown in figure 3-4

Figure 3-4a illustrates 2 ideas that we wanted to try out: 1) The box should try asking participants at a meal to sit and just watch the meal in silence for a minute;

¹⁴See dl.acm.org

¹⁵See sciedirect.com/science/journals

¹⁶See elsevier.com/journals

¹⁷See hcibib.org

¹⁸See servicedesigntools.org/tools/23

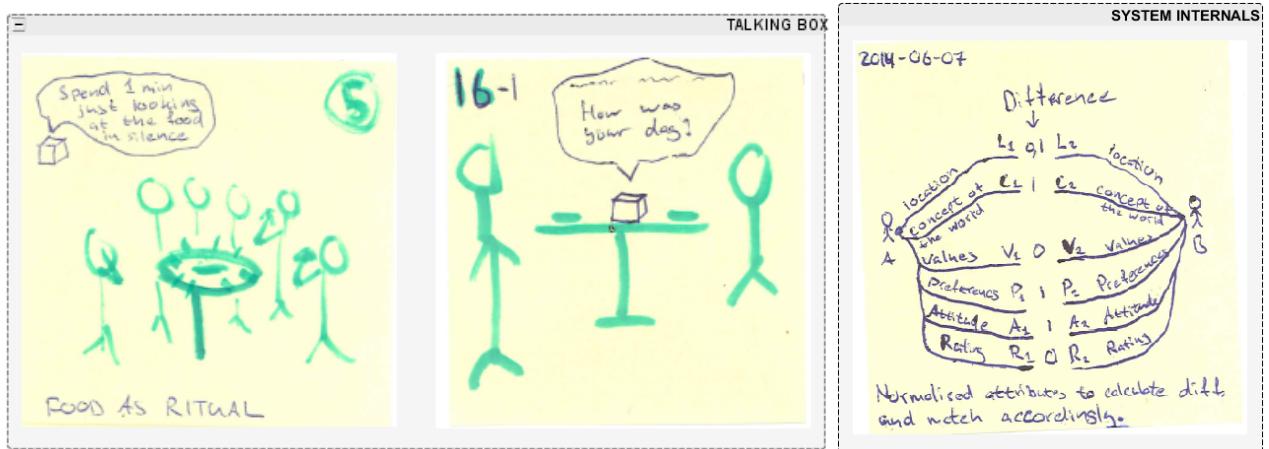


Figure 3-4: Selected ideas that came from our brainstorm session.



Figure 3-5: Ideas concerning the SMS interface.

2) The box should come with different questions during dinner as triggered by audio patterns. These ideas were sparked by the comments from interview subjects that food was a ritual to decouple from the everyday world, and that awkward silence is resolved by someone asking a question. Figure 3-5 illustrates 3 ideas about the SMS interface. We chose the SMS interface as many users reported using SMS for arranging mealtime events with friends and family already. 1) The service should SMS users about dinners; 2) The service should provide global commands for the user to undo or signout from the service; 3) The service should send SMS

requests for dinner-review to users. The last figure 3-4b represents the user data that the system should use to send out custom invitations. During the interviews, subjects reported that their motivation to attend a dinner depended on the food, the location, how many people came and some notion of who they were, as well as a way to evaluate their *reputation*.

At this point in time in the project we were still rather optimistic that we would have time enough to develop a prototype, a multimodal system consisting of a website, an SMS interface, a voice interface and a physical interface that people interact with, and a number keypad to type phone numbers. Our driving idea for this prototype was that we should pursue a route of using as much open-source hardware/software components and commercial-off-the-shelf (COTS) as we could. For this reason we pursued a market search of available components, comparing them on value-for-money means so that we could also compute a realistic product cost. We consulted hardware product sites¹⁹ and software-oriented sites around topics like IoT, Cloud, M2M, SOA²⁰ and comparing these offers with what we already know of possibilities and prototypes in the research community (Kindberg & Barton, 2001; Corke et al., 2010)²¹ and how they relate to new technologies or active research fields like BLE, 6LowPAN, IPv6, NFC, Mesh networks, Energy Harvesting, Cyber Foraging, Speaker Diarisation. Using a process of comparing and contrasting of various sources we formed a conceptualisation of how the different hardware components could be arranged to produce a device capable of doing what we had envisioned.

3.2 Phase 2: Gathering Test Subjects

Conducting Interviews was a process manifested by the researchers going out into the field, becoming face to face with interviewees for the purpose of gathering focal information, background information (Carlston, 2013, p.732; Luckmann & Berger, 1971), as well as situational information - it is a situated experience. As noted earlier, during the interviews, emails were requested to all 20 people (3 people did

¹⁹HW sites like arduino.cc, raspberrypi.org, spark.io, electricimp.com, pinocc.io, openpicus.com, enocean.com, fritzing.org, mbed.org, iobridge.com, mouser.com, veear.eu, sensoryinc.com, dexterindustries.com, seedestudio.com, sparkfun.com, adafruit.com, sainsmart.com, element14.com, farnell.com, arduinotech.dk, miniiinthethebox.com, exp-tech.de, electrozone.dk, re-layr.io, mikroe.com/mikrobus, kinoma.com, intel.com/content/www/us/en/internet-of-things, intel.com/content/www/us/en/do-it-yourself/maker.html

²⁰SW-oriented sites xively.com, hadoop.apache.org, we-io.net, nimbits.com, riot-os.org, contiki.com, appengine.google.com, evrythng.com, thingspeak.com, openiot.eu, windriver.com/products/vxworks, nodered.org, mqtt.org

²¹See also chor-lang.org, nest.com, karotz.com, fresh.amazon.com/dash, amazon.com/oc/echo, helloivee.com, theubi.com, and prototyping platforms mentioned in (Krumm, 2009, chp. 2)

not want to give their email, and 3 emails given were mistyped). For the next step of the project, these emails were now employed, together with several other approaches, for the purpose of ensuring participation to one of our Wizard of Oz dinners.

A total of 147 people were recorded in our database as participants of the project. From an Interaction Design perspective, it is of value to note the touchpoints (Moggridge & Atkinson, 2007, p. 422) of the service to the end user - all the facets of the service that the end user comes in contact with. Even though the primary focus is on prototyping the service, because a part of the service consists in gathering people who are interested, this 'gathering period' itself also becomes an exemplar of a form of prototyping in which we are trying different designs out to find out what works. The figure below shows the distribution of participants in relation to their initiating touchpoint to the service.

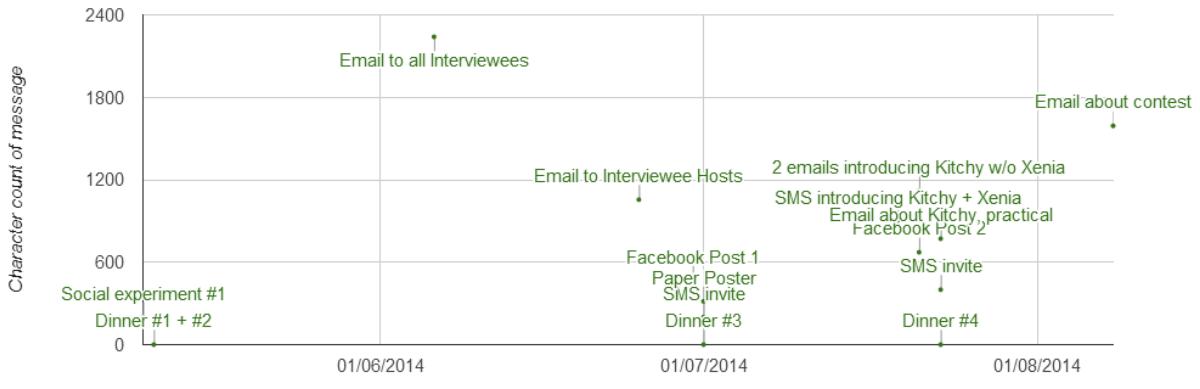
As seen in figure 3-6b, the majority (63) of individuals were approached in-person by us the researchers and told about the project in greater or lesser extent. 49 individuals first came to know about the project as a consequence of the Facebook posts (22 of which participation consisted solely of a Facebook Like). The 24 individuals whose first touchpoint was an SMS, were people from our existing friend network whose mobile number was known to us already. 11 of the participants could be shown to have been introduced to the service by a friend, thereby making Word-of-mouth a new touchpoint. None of the participants were found to have the paper poster as a first touchpoint.

The message is not the meaning

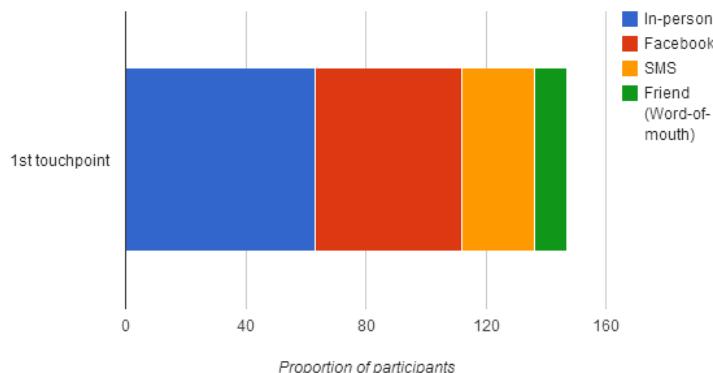
Figure 3-6a gives an overview of the primary types of interventions (i.e. interventions that we initiated, as contrast to Word-of-mouth interventions that are secondary effects) that we have employed to gather participants interest. We call them interventions instead of messages or broadcasts, because, as it will be shown, the message is not just the message - that is to say, the semantics created by the specific syntax of words, does not itself constitute the "meaning" of the message as interpreted by the receiver (Sondergaard, 1992; See also Horowitz & Strack, 2010, p. 171; Carlston, 2013, chp. 35).

Electronic media affords interruptibility as Norman (1998, p. 125). Opposite from situated two-way communication, there is just no way of knowing if the other person is busy nor where they are.

When we sent out the first two emails to the interview subjects we thought it would be no problem to enter phase 3 - the real testing of our concept of facilitating dinners between unacquainted people - but as time passed and no one replied on email, we realised that we could follow one of at least two approaches, either accept failure and delve into another aspect of the project, or take it as an opportunity



(a) Timeline of interventions



(b) Participants 1st touchpoints

Figure 3-6: timeline of interventions employed and a distribution of participants according to their 1st touchpoint.

to *prototype the process of getting people interested*. We decided on the latter approach and the sections below are a reflection on that.

Emails

Asynchronous, mediated email communication is a very different media than synchronous, situated speech communication. Text-based communication is visual, static, irresolvable, sustained over time, and has a character of being more planned and monological whereas speech-based communication is audible, dynamic, resolvable to error, fleeting, and has more a character of being spontaneous and interactive/dialogic (Sondergaard, 1992). One email were sent to the list of interviewee participants asking them to confirm their intention to join by completing four

tasks. The email was written in both Danish and English with Danish translation on top since the majority of our interviewees spoke Danish. The Y-axis on figure 3-6a shows the character count of the messages sent. Email messages, for the most part, had the largest character-footprint. Taking the email on 6th of June as a reference (see appendix B.1), this email contained subject headings, bulletpoints, differently colored text, and paragraph headings together with introductory greetings and finalizing 'regard-paying' - all in good tune as a message from the domain of academia to the domain of civility, disclosing the purpose of the message and ensuring user confidentiality, but at the cost of becoming monolithic and stipulating a specific form of acceptance-criteria should a user reply to it. In McLuhan terms it is hot media because we are presenting the content in a way that is high-definition, defining all the terms ourselves and leaving nothing of the essential content to be interpretable/negotiable by the end user (McLuhan, 1994). The nature of the message is similar to the message we conveyed to our interview subjects verbally (both are based on the same principles), but because it is now manifested textually in an email it changes the meaning of the message. It has become very formal. Character count alone does not make a message formal. Our interview analysis points to several subjective comments that the media in which a message is presented also forms whether or not that message is interpreted as being formal or informal - in that sense the medium is the message as McLuhan so famously proclaimed (McLuhan & Fiore, 1967), and among our interview subjects we found a tendency of the pre-30/early year olds to view email as a more formal media than SMS/facebook, whereas for the people older than mid-30's viewed email and SMS as equally informal. Email differs from SMS messages in a number of ways, one of the things to draw out now is that where a broadcasted message on SMS itself does not disclose that it is a broadcasted message addressed to several individuals, email, by way of having different recipient-modalities to choose between, always discloses to the recipient whether he/she was the primary recipient (To:) or secondary recipient (Cc:/Bcc:) of the message. The email that generated the most amount of observable user-interaction was the email on 8th of August, sent out to all 60 people to whom we had the email of. In the email there was a link to a Google Form, presented as a contest. 8 people filled out that Google Form, 6 within the first two days - one of the people to fill out the contest was one of the original interview subjects. Subsequent to this email we sent out an email on the 16th of August to the winners of the contest and this sparked an email-based dialogue resolution of how to pickup the prize and a showing of gratitude.

SMS messages

Following the line of reasoning from email, we see that SMS as a medium can be employed both as an exemplar of monology (the 800+ character message on

19th of July, figure 3-6a) and as an interactive, implicative, cool media, dialog-initiating form as exemplified by the 100 character message on the 1st of July. This message from the 1st of July contains sentences that illustrate *implicatures* (Cohen, Morgan, & Pollack, 1990, p. 351). Sentences where the intention of the author is not explicitly stated in the semantic content of the utterance and therefore leaving it up to the receiver to infer or assert the intention. The message literally reads “Hi there is dinner from 18:15 to 20:15 on Nørrebro. Vegetarian food with fish. Room(seats) for 2 people” leaving it open-ended for the user to reply. Of the 15 people (9 of who had signed up, while 6 had not signed up but were from our existing friend network and this message constituted their 1st touchpoint) that this message was sent to, 4 (27%) replied to it and different message exchanges initiated, ambiguity resolving message exchanges concerning the date of the event, but mostly it was ambiguity about who the sender was, raised by those who had not signed up. By comparison, subsequent to the 800+ character SMS message on the 19th of July introducing the service to 46 recipients, we sent a 62 character SMS message that read “Har du lyst til at spise sammen med nogen i aften? Mvh Kitchy” (“Would you like to eat with someone tonight? Br Kitchy”). This is not an implicature in the same sense as the message from the 1st of July, this is instead a question expecting Yes or No as an answer. But as a question to the receiver, the sentence can be interpreted to presuppose the existence of a dinner event that is available to join and this was not the case at this point in time - the intention of the message was to survey interest and attempt to initiate the users in the signup-scenario that we had sketched. 12 people (26%) replied, the majority of who followed the Yes/No reply syntax as intended in order to simulate the computational workflow designed.

Facebook posts

Figure 3-7 shows the two public Facebook posts we made and some of the activity it generated. The two posts are different in a number of ways that we will try to elaborate on to highlight some of its communicative effects. Both posts are accompanied by an image found on Google Images. On Facebook, posts containing images are more visible in the timeline of the users. The first post (30th of June) contains an image of a plate with cutlery in strong, bright colors and a text reading “Dinner is ready!”. The second post (21st of July) features an image of six people gathered around an outdoor dinner table, eating together and in a happy mood. In the first post, the majority of the text presents a task for the user to make a self-evaluation on a number of points. In that way the text becomes a dialog and the user participates in creating the meaning of the story from the start - the user has to answer Yes to continue. The second post has a different communicative style, it is more like journalism, presenting the ‘story’ in its entirety and in accord

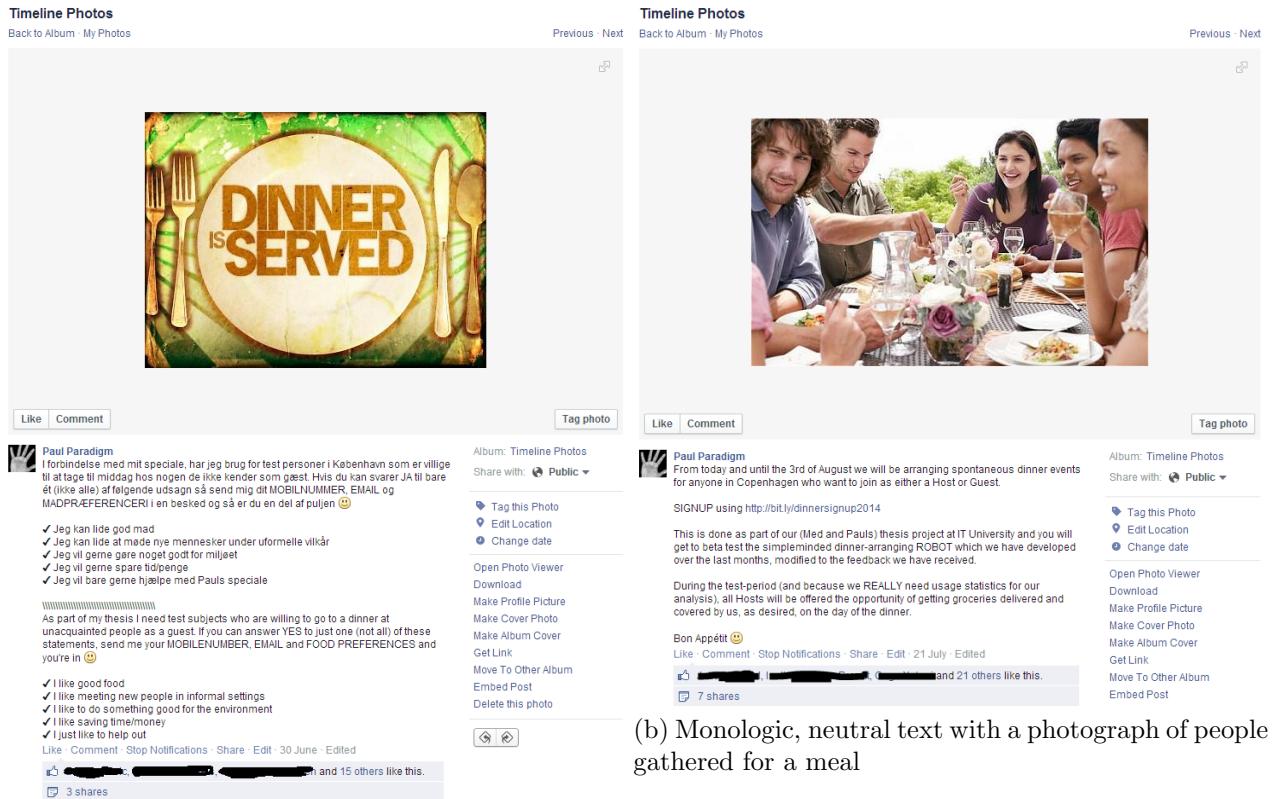


Figure 3-7: Facebook posts made on the 30th of June (left) and 21st of July (right).

with the five W's (Who, What, When, Where and Why about the message put forth) and a 'How' that shows users the way to interact. This turns the text into a monologue that doesn't necessarily 'need' the user as the story is already created, but offers a way for them to participate if they want to.

The Facebook posts were on par with SMS messages with respect to the length of the messages - the first post being bi-lingual around 450 characters and the second being English-only and almost 700 characters. Similar to a paper poster, the Facebook posts were public and it is not known how many have received it. 14 people signed up following the first Facebook post and it was shared once by an individual. 9 people signed up following the second Facebook post and it was likewise shared by another individual. Besides the sharing done by these individuals, we shared the posts to different Facebook Groups. First post was shared to 2 groups: 1) a group for people interested in a volunteer-run yoga-club; 2) a group for people with interest in or connection to mainstream and underground

film/tv-industry as a job and discussion-board. Second post was shared to 6 other groups: 1) a volunteer-run, Copenhagen-based gift circle community; 2) a Foreigners in Denmark group; 3) a male-support group; 4) an urban gardening, permaculture and 'food is free'-type group; 5) a group for vegetarian eat-togethers; 6) a group for events about mindfulness and get-togethers. The participants that we got via Facebook thereby represent these diverse groups or are part of our own social group of friends and friends friends.

Paper posters

The paper poster (see appendix) was put up on different boards inside the ITU building for the month of July. It had a headline that read "Eat good food, Meet good people" and contained a short message saying that to participate, one had to send an SMS message to a number indicating their food preferences, their neighborhood location, and their email address. No participants were found to originate from this approach. We had ideas for further designs of posters and placing them in other locations as well. Using paper posters either on public boards in libraries, in residential areas or as advertisements inside local newspapers, was also pointed out to us from the interview subjects as a good platform. With the interest already coming from Facebook we were not able to process more participants and put this approach on hold.

Word of mouth

In talking with some of the participants we discovered that a number of those who have signed up, did so by being referred to the service by a friend - the friend thereby acting as the 1st touchpoint for the friend-of-friend's discovery of the service. In our interviews, one person raised the remark that it would be important for her that the service operated through a referral programme so that the people joining a dinner are at most 2 or 3 degrees separated from each other, meaning that host and guests are within the circle of friends-of-friends. That was presented as a criteria for her to participate. A number of other interview subjects mentioned that while they didn't see themselves being 'first-movers', they would try out the service if a friend told them about it. 11 people came in contact with the service via a friend, 7 of which were referred to by the same individual (Bojan). 1 of Bojan's referrals and 1 referred by others did not want to participate when being provided with further information about it. Whether word-of-mouth occurred as a co-situated exchange or as an exchange on SMS or Facebook or email, is not known, but the medium in this respect is assumed to have less of an influence as long as the receiver is able to recognize the sender as a known friend. As an example of this same principle is an SMS exchange that took place on the day of

Dinner 3 (On 1st of July). The invitation was sent to a person who was part of our friend network, but from an unacquainted phone number and he had not signed up voluntarily and might not know about the project.

17:40	dsal	SMS	Hej der er middag fra 18:15 til 20:15 på Nørrebro. Vegeter ret med fisk.plads til 2 personer. Hi there is dinner from 18:15 to 20:15 on Nørrebro. Vegetarian food with fish. Room(seats) for 2 people	
17:42	dsal	SMS		Sounds great .. Men hvem er dette? dsal ((Sounds great .. But who is this? dsal))
17:42	dsal	SMS		Hvor ((Where))
17:47	dsal	SMS	På <USERADDRESS> kL 18:15. ((On <USERADDRESS> at 18.15.))	
17:48	dsal	SMS		Men ... Hvem er dette fra? ((But ... Who is this from?))
17:53	dsal	SMS	Nu er det ikke mere plads næste gang forhåbentligt :) ((Now there are no more seats available, next time hopefully :)))	
17:54	dsal	SMS		Meeeen ... Hvem er det fra? :K ((Buut ... Who is this from? :K))
20:33	dsal	SMS		Very puzzled....
20:34	dsal	SMS		Og send gerne flere tilbud... Elsker at spise ud ((And please send more offers... Love to eat out.))

Figure 3-8: Message timeline between System and Juan on 1st of July in connection with Dinner 3.

What the example in figure 3-8 shows is that while the recipient recognise the value proposition offered in the message, this blends away in comparison to the lack of an identifiable sender. This is by no means universally so, individual differences exist and other exchanges on the same date illustrate individuals to whom lack of an identifiable sender does not seem to be the reason for decline, but lack of time.

Studying the effects of word-of-mouth, or “friendship patterns”, has been attempted before back in WWII where Margaret Mead and Kurt Lewin headed a program to change the populations eating habits in times of crisis²² (Wansink, 2002). Here, the result was that it wasnt a viable approach once participants caught on to the underlying externally defined goal (Koos, 1943).

In-person

The majority (63) of the users in our database were recruited in-person by the researchers. Aside from the 21 interviewee subjects (20 + 1 pilot interview), we approached 12 people at ITU and 30 people from our existing social networks. Reflecting on the role of communication, there is something to be said about the manners in which we approached the students at ITU. Most (9) of these were recruited on the 11th of May in connection with our first Dinner experiment for the purpose of getting guests for the actual dinner. We had not agreed on a specific method to approach individuals prior to, so by virtue of being to different

²²See http://www.nap.edu/openbook.php?record_id=9566&page=74

people we approached students in two different manners which can be characterised by the sequence of presenting the five W's to the interlocutor. Paul's approach in general was to first present the What and Why (that it is a thesis on the subject of food and technology where we use experience prototyping to design an interactive prototype) before presenting the How - the actual invitation to the current dinner. Med's approach in general was the diametric opposite, saying to people that they should come for dinner (presenting the How), take a break from what they were doing for 10 minutes or so, and then when they agreed, he would explain the What and Why background along the way while leading them to the actual dinner space. If the former can be seen as an example of a formal approach and monologue-initiated, the latter can be seen as an informal approach and dialogue-initiated. We found the dialogue-initiated approach to be more successful.

Introducing the concept of Xenia

"Then, [Diomede said to Glaucus] you are an old friend of my father's house. Great Oeneus once entertained Bellerophon for twenty days, and the two exchanged presents. Oeneus gave a belt rich with purple, and Bellerophon a double cup, which I left at home when I set out for Troy.

Homer, (750 B.C.): THE ILIAD: BOOK VI

In archaic Greece, the world was viewed as a wild place full of savages and perils to individuals, but one of the ways a sense of social security was embodied into that world was by the concept of "Xenia", 'hospitality to strangers' (Belfiore, 1993). By adherence to a set of cultural rules, the performance of a ritual, strangers became friends and bound to each other under a guest-friendship obligation stretching across generations. In the epigraph above, the battling warriors Diomede and Glaucus, upon realizing that they are "xenoi" - bound to eachother by their ancestors performance of Xenia - they exchange gifts (trading arms), give assurance to each other that they are welcomed guests at their home, and that they will not harm each other in battle or elsewhere.

The performance of Xenia takes place in the home of the host and puts rules of conduct on both the host and the guest for good Xenia to be performed. If a stranger comes to a host, the host should welcome the stranger as a guest and offer him/her food, drink and a bath, and refrain from questioning the guest until they are satisfied and comfortable. The guest in turn, should be respectful of the host, charming, entertaining and not overstay their welcome. Both parties are expected to exchange gifts upon parting.

This kind of social practice is by no means limited to archaic Greece but found in various forms in most cultures (Mauss, 1954; Carole Counihan, 1999; Carole Counihan & Kaplan, 1998; Diamond, 2012).

Another way that this can be understood is in terms of rules within a game. But in that understanding, the rules are only one aspect of a game, Avedon (1971) has made a review of selected mathematicians and behaviorists who have studied games in culture and proposes the following seven aspects as the structural elements making up a game: 1) Purpose; 2) Procedures for action; 3) Rules governing action; 4) Number of required players; 5) Roles of participants; 6) Participant interaction patterns; and 7) Pay-off. The concept of game presupposes the concept of play, and where game is a structural variation of play, play is itself a form of metacommunication (Bateson, 1972, p. 179) in which the participants only know they are playing, by knowing it. That is to say, there are no characteristics of play in itself which defines it as such (Wittgenstein, 2010, pp. 29-30), other than the participants agreeing it to be such. In Huizinga (1955, chp. 1, 2), the concept of play is even older than culture, for it is by the creative nature of play that language and in turn culture, was formed.

Based on these notions we decided to introduce the concept of Xenia to the users as a set of guidelines for the usage of the service. As a test we only introduced some of the users to this concept. The idea behind this was to see if it was possible to correlate user experiences with awareness of game rules. Figure 3-9 shows our implementation of Xenia as a set of rules for users of the service. Same guidelines were sent out over SMS on 19th of July to all 46 at the time, Danish participants to whom we had the mobile number. The first user (Bojan) was introduced to the gamerules in situated speech the day prior to Dinner 3 where he was to be a participant.

The Rules

The following guidelines apply to users of Kitchy:

If you are a **Guest**, be **courteous**
If you are a **Host**, be **hospitable**

Figure 3-9: Representation of Xenia in Google Document made available on 21st of July to select recipients.

The snippet in figure 3-9 is from a larger text presenting the service in its entirety (see appendix B.2). A duplicate document was created that omitted the representation of Xenia and both documents where made available via trackable bit.ly²³ shortlinks. The document that omitted the representation of Xenia was

²³Bit.ly is a URL shortening service <http://bitly.com>

made available to 25 (20 interview subjects + 5) participants whom we only had email of. The link to this document was also made available in a comment to the Facebook posts so that everyone who subsequently signed up via Facebook would have this as reference. In total, 65 people were made aware of the gamerules of Xenia while 82 were not. In the four dinners that took place, only Bojan had the awareness of Xenia prior to the dinner.

The representation illustrated in figure 3-9 is somewhat ambiguous and because it constitutes something that is already an implicit cultural norm, we will discuss it more in the Findings chapter.

Characterizing the participants

There are three dimensions that we considered particularly important for positive usage experiences and that we wanted to incorporate into the service in a computable way. Those dimensions we call: 'Where people are' (Location-preferences), 'What people eat' (Food-preferences), and 'Who people are' (Person-preferences) - the system should invite participants only if their location is within reach of the dinner, if their foodstyle is compatible with the dinner being offered, and using personality-metrics and social reputation as a guide.

The nature of what we are embarking on here can be misunderstood as scientistic (Eg. Hayek, 1943) - the assumption that objective methods of science can be applied to subjective study of people and behavior. This is not what we are doing and we are aware of the fallacy. We are exploring ways to *quantify* social constructs, and disregarding the truth of these constructs in themselves we use the *numbers obtained* as weight-factors in the automatic selection and sequential process of inviting groups of people to dinner with other people. We are not arguing that because of some measurements done, that this is reason to believe that people are "so and so" and behave in "such and such" ways.

With regards to user's location, we had defined from the start that the greater capital region of Copenhagen was a necessity to participate, therefore we didn't rigorously match people based on location but invited all in our database that matched the Food-dimension and used the Person-dimension as a course of investigation with regards to experiences of good/bad dinners, but not as a criteria for selecting people during our test period. The majority of user's lived within the greater capital region with the notable exception of Ulla who lived in the northern part of Jutland but was visiting Copenhagen in relation with her studies, and Gitte who lived closer to the mid-west part of Zealand. Both of who were participants at Dinner 3.

Figure 3-10 show the distribution of participants along different parameters based on what they replied on our sign-up questions. Not all participants where asked all questions, and among those that were asked, not all replied, which ac-

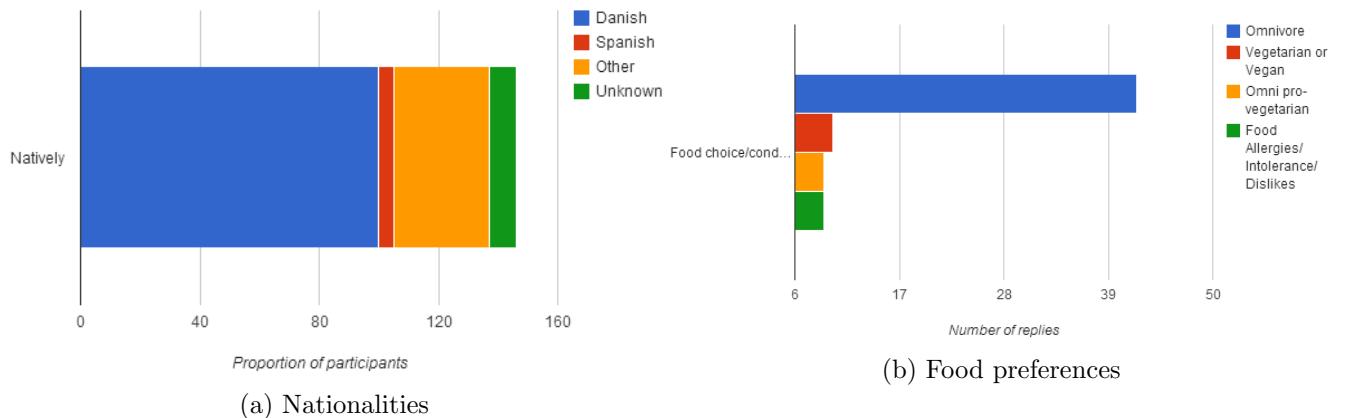


Figure 3-10: Statistics on participants.

counts for why there is a variation in the sum of replies on the graphs. Furthermore, like preferences with regards to hosting or guesting a dinner is dynamic and can change from day to day, the other parameters are likewise dynamic albeit on longer timescales.

What people eat

We classify the categories in figure 3-10b in the following way:

Omnivore Can eat any animal or plant products.

Vegetarian Does not eat any meats.

Vegan Does not eat any animal products.

We recognize the mix of planes with these categories as pointed out in Joy (2011) - that while the terms “Vegan” and “Vegetarian” denote types of ideologies, the term “omnivore” comes from biology to signify any animal able to derive nutrients from both plant and animal sources, and therefore when used to describe a persons eating habits, it thereby fails to represent the underlying belief system that motivates the active food choice. Vegetarians/Vegans are of course also omnivores, so a better term for this third food-choice style is “Carnism/Carnist”. There are numerous other belief-system induced food-choice styles, all religions come with a set of rules for food consumption and sometimes also preparation, and as new ways of manufacturing food are created and put into common practice (GMO, Synthetic Biology), a further refinement of existing belief systems will

ensue (Clapp, 2005; H. Miller, 2005; H. I. Miller, 2010) or other food-choice styles will likely be proposed.

The majority (50) reported to be omnivores, 9 of which reported to be in a transitory phase with a preference for a more vegan, vegetarian, pescetarian (a vegetarian that eats fish), rawfood, or lowcarb (short for low-carbohydrates) diet. 6 reported to be Vegan, and 4 reported to be Vegetarian.

In accord with the notion that food choice is based on a belief system, like religion and politics, it is subject to equal amount of heated debates when it surfaces at a dinner table of individuals representing opposite viewpoints. Aside from being a belief system, we also want to say on a more general level, that our foodways similar to our language is first and foremost the product of socialization during childhood. As we grow up we adopt the foodways provided by our parents first and then later find ways to individuate. The coupling between socializing into language use and socializing into foodways can also be used to understand why adopting other foodways can be so difficult for people. And like being co-present with someone talking in another language can be seen as a symbolic threat, we think that being co-present with someone eating food based on a different set of beliefs can also be seen as a symbolic threat (Heatherton, 2000, pp. 73-109).

Furthermore, as has been shown in Szatrowski (2014, chp. 5) that loanwords and code switching when talking about food can be used to demarcate or distance one self from the food, we think it likely that food and language on their own, also can be used for individuals to demarcate and distance themselves from other individuals.

Who people are

With regards to nationality, figure 3-10a shows that the majority (100) were known to be Danish, 5 Spanish and 9 were from unknown origin. The 32 people that constitute the 'Other' category, constitute groups of 1 to 3 individuals originating from India, Greece, Italy, Portugal, Russia, England, Faroe Islands, France, Gambia, Guatemala, Yugoslavia, Iran, Japan, Lithuania, Malaysia, Romania, Uganda, United States, Ukraine, Argentina, Australia, Bulgaria, Canada, Colombia, and Czech Republic.

Irony or sometimes sarcasm in communication is often associated as a cultural trait for Danish people in both popular media²⁴ and some research studies (Meyer, 2006). While negative stereotypes like these exist also for many other cultures, we don't see them as much informative for the purpose of prescribing who should be invited to where, nor in predicting the outcome of different dinner constellations.

²⁴See "Vikings 'brought sarcastic sense of humour to Britain'" <http://www.telegraph.co.uk/history/10677904/Vikings-brought-sarcastic-sense-of-humour-to-Britain.html> and "Danish Culture - Danish Immigrant Museum" <http://www.danishmuseum.org/danish-culture.cfm>

Knowledge of nationality can serve as a parameter on which to ensure maximal differentiation among participants.

To measure the dimension of "Who people are" on a more finegrained level we considered three approaches, two of which can be done prior to a dinner, and the last done subsequently to a dinner as a review process.

A-priori to a dinner: Traits, Norms, and Self-description

A priori to dinner we tried two approaches: One was open-ended and asked participants to describe themselves in 140 characters, and the other was closed-structured by asking participants to judge on a 5-point scale (from Totally Normal/Acceptable to Totally Weird/Unacceptable), how normal a number of dinner-related events seemed to them. Both tasks were embedded in the Registration Form (see appendix B.2), but since this form was created late in the process and only 3 people signed-up with it, we also embedded the second task in a Contest Form (see appendix D.1) that we sent out as competition to all participants in email on the 8th of August.

Self-descriptions

Britta	Luca	Helen
<i>I study "Global Nutrition and Health" and like traveling & moving to totally new places. I also love cooking & baking - I love cakes!</i>	<i>Italian who likes food. I like to cook and to eat. I work in IT, I have 3 small kids and I am separated from a Danish woman as required by the Danish Integration Institute. :)</i>	<i>I am a very confused person, that cannot start her thesis, but i love art, exploring, eating good, creating, writing and so on. I try to be positive and follow my dream, or re try, rediscover :) and i also try to be open, in general.</i>

Table 3.1: Three individuals who submitted a self-description on filling out the Registration Form.

Table 3.1 shows the answers obtained to the task given of describing one self in 140 characters or less. Britta was the only to actually stick within the 140 characters as Google Forms did not allow a strict limit to be set. While Britta and Luca profess to love cooking and eating, Helen exemplifies a person who likes eating and in general likes to experience new things and has many different interests. In trying to analyse open-ended self-descriptions in a computational way, we will have to resort to an analysis of syntax and keywords possibly coupled with n-gram comparisons of segments that start with "I". From Britta and Luca's descriptions we see the syntax "I study X" and "I work X" as aspects of their doing that they currently identify with. These two expressions of 'doings' can be

used to automatically invite people who identify themselves as students or workers respectively in mixed or unmixed dinners. Luca also, together with Helen, used the syntax "I am X" to represent something as significant of their identification of 'being'. The keywords following the construct "I am" can in turn also be used to direct invitations based on how people use different keywords to represent meaningful aspects of themselves. Luca's construct "Italian who likes food." is an example of an implicature in that it is implied that he is talking about himself and that his sentence is equivalent to the sentence "*I am an* Italian who likes food." To catch implicatures, one could employ n-grams to prefix such sentences with "I", "I am (a/an)", and "I am a person who" and calculate which of these fuller sentences have the higher likelihood (Jurafsky & Martin, 2014). Now, with a system starting with zero dinners and therefore zero positive or negative experiences, the initial predictability of whether Britta will have a better experience by dining with Luca vs Helen is uncertain (and indeed it is always uncertain as all living beings change dynamically over time), feedback obtained from users subsequent to a dinner can be used to tune the parameters of the model and continually increase predictability (Han, Kamber, & Pei, 2006, chp. 2).

Traits and Norms

The idea of using peoples' perceptions of norms as a way of predicting possible conflicting attitudes when being copresent with each other is not new but is among others found in social psychology in the study of stereotyping and stigmatization (Heatherton, 2000, pp. 66-72). It is here found that individuals actual expression of prejudice towards others is proportional to their perception of the societal norms regarding the acceptability of expressing prejudice. In social cognition and interpersonal psychology, the concept of scripts (Abelson, 1976) refer to the mental representations that people have of some well-learned routines. "Activation of such a representation can guide behavior in that situation without a person consciously attending to either the stimulus that triggered the representation or the reasons for enacting the behavior (Carlston, 2013, p. 27; See also Langer, Blank, & Chanowitz, 1978)". Behavior that can be performed nonconsciously constitute stressfree behavior we profess, but if an individual behaves in a way that is divergent from his/her perception of norms, or find them-selves in ambiguous social situations, they are at higher risk of experiencing stress and anxiety which if not alleviated by altered perceptions, then only can be alleviated by re-conforming to their perception of norms again (Heatherton, 2000, chp. 10). For these reasons in particular we think the exploration into norms can be a useful way of creating a prioritised guideline to the Systems' automatic selection of individuals to be invited to dinner at different hosts.

Now, we are not social psychologists, so by no means should our implementation

be considered comparable to what social psychologists have done. We are adopting the principle as an explorative tool in understanding participants experiences of dinner with others as forming positive or negative impressions. A total of 11 people filled the Norm-questionnaire that we had prepared, 3 of which also participated as guests (2 of which attended the same dinner). There are a number of shortcomings with our approach, most easily expressed by the grand assumptions we are making:

1. Assuming that popularised descriptions²⁵ of the 16 trait-based personality types of MBTI are valid. Thereby adopting the “Doctrine of Traits” (and therein, an adoption of MBTI vs the generally more approved Five-Factor Model (Furnham, 1996; McCrae, 1989)) in favor of the “Doctrine of Situationism” and the “Doctrine of Interactionism” (Carlston, 2013, See chp. 38).
2. Assuming that our interpretation of these 16 types into 16 exemplified guest behaviors and 16 host behaviors are valid (see appendix B.2).
3. Assuming that our extension with 4 value-based types and their exemplification as guest/host behavior is equally valid.
4. Assuming to some extent that people apply same norm standards to guests as to hosts.

As point 2 indicates, we created two exemplary descriptions for each type, the purpose of which was primarily to serve as a double validation of the expression of norms towards a particular personality type. But as point 4 indicates, this was an assumption that proved not always to be the case with our data. For the majority (10) of the test subjects, most of their answers on the normality of Guest-behavior was close (≤ 0.5) or identical with their answer to the normality of same-type Host-behavior - in this sense we interpret them as weak-dissonant and that no matter if an individual is in the role of host or guest, they will apply same approach or avoidance behavior toward them. For one test subject, the distance between answers to 10 out of 20 questions was ≥ 1 indicating that there are 10 types to which the subject will behave in an accepting or condoning manner if behavior is performed by a guest (or host), but in an ambiguous or directly condemning manner if performed by a host (or guest). In 3 unique test subject-answer pairs, there was found instances of complete opposition in subjects' answers. 2 of these instances occurred for the same type evaluation question, the question of evaluating normal behavior on hosts and guests as exemplified by the description of the ESTP type (see appendix B.2). This personality type was embodied in these

²⁵See, <http://www.truity.com/view/types>, <http://mbtitoday.org/about-the-mbti-indicator/the-16-mbti-types/>, and <http://www.ux-lady.com/using-mbti-to-shape-user-personas-personality/>.

two examples: 1) How normal is this kind of Host behavior at a Dinner? [Is so much all-around that guests feel hectic]; 2) How normal is this kind of Guest behavior at a Dinner? [Friendly and wants to help cut vegetables or cook and feels happy when they learn a new way of doing it]. In popular media, this personality type is characterized with labels such as thrill-seeking, action-oriented, practical, impatient, flexible, tolerant, learning-by-doing, and a preference to fast-pacing and silliness rather than emotional and seriousness.

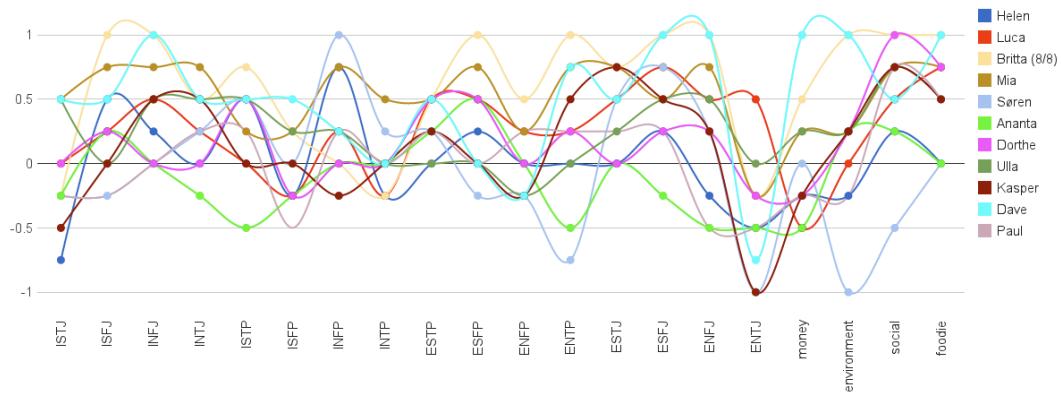
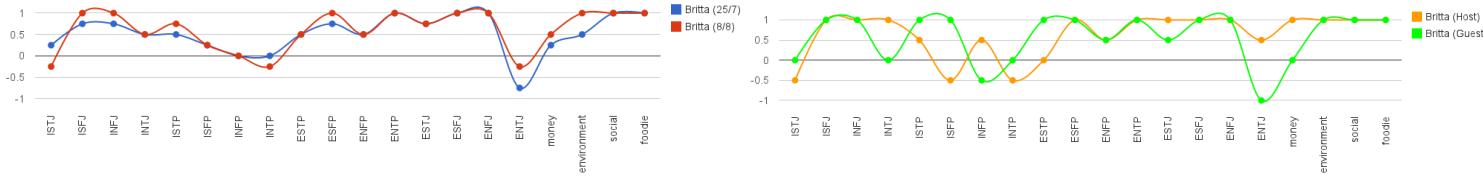


Figure 3-11: Map of differences between respondents.

Figure 3-11 shows the 20 types and how each test subject have judged them with respect to their perceived normality of exemplified behavior. What can be seen is a generally accepting disposition (most curve values are above 0) of all subjects towards exemplified behavior across all types. The peak(s) on each curve signify types that the test-subject theoretically would be most prone to accept, and the minimum values along each curve signifies personality-types which the test subject would be least prone to accept. The four types labelled 'money', 'environment', 'social', and 'foodie' in the figure, are types that were created to exemplify four different types of motivations that we could identify from the interview data. That there are people to whom saving or earning money could be a motivation for commensal meals, as well as people to whom environmental-benefits, social-benefits or food-experiences were seen as motivations.

The one type that stands out as a common point of condemnation among test subjects is the ENTJ type exemplified by the descriptions: 1) How normal is this kind of Host behavior at a Dinner? [Tells guests how to sit and how to eat the food in the best way]; 2) How normal is this kind of Guest behavior at a Dinner? [In an 'I know best' attitude, will tell the host that 'of course the rice got too mushy with that amount of water you put in'].



(a) Same person answered twice, about 2 weeks between.

(b) Answers on Host-behavior vs Guest-behavior.

Figure 3-12: A closer look into variability of answers using Britta's answers as example.

By luck we got the chance to add some degree of validation to this approach when it turned out that one of the test subjects had filled out the questionnaire in both the Registration form on the 25th of July and the Contest Form on the 8th of August. Her judgement of 11 of the 20 types was exactly same on the second time of her submission as on the first. Of the remaining 9 type-evaluations, 3 deviated by 0.5 point and 6 by 0.25 point. The majority of these deviations were in a more positive direction as compared against the first set of answers. While this does not add any validity to the first three assumptions, it does add some validity to assumption 4 in that it can be seen from this example that this test subject applies fairly similar response over a 2-week period.

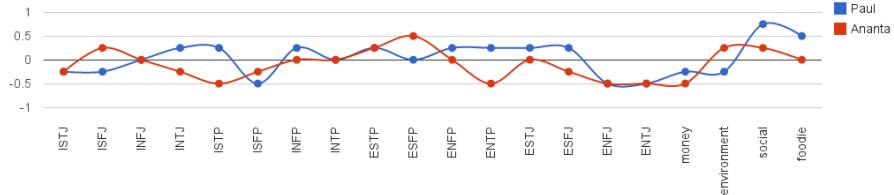


Figure 3-13: Map of differences between Paul and Ananta based on an average of their answers to the questionnaire.

As mentioned earlier, only two of the test subjects who filled the questionnaire, actually also participated in a commensal dinner. These where Ananta and Paul (see figure 3-13) who together with Jared, had a commensal meal in Nørrebro park on 23rd of July with Paul as a host. The two types on which Ananta and Paul differ the most are on ISTP (Dominant Introverted Thinking with Extraverted Sensing) by 0.75 points and ENTP (Dominant Extraverted Intuition with Introverted Thinking) by 0.75 points. The way that the system would do “matching” is by calculating the aggregate sum of differences compared to the total possible aggregate sum of differences(which is always 40). In this case the aggregate sum of differences between Paul and Ananta was 6.25 (15% disagreeableness) so in that

sense they are regarded as well agreeable with each other. Conversely, the aggregate sum of difference between Ananta and Dave is 35% indicative of significant disagreeableness compared to Paul and Dave who were at 28% disagreeableness.

Again, how agreeable people are in actual situated experiences is not something that can be predicted but we use the numbers to explore different matching algorithms.

Interpersonal Relating

The problem with both of the two approaches above is that their focus on trying to find out 'Who people are', still leaves a question open with regards to 'How people behave in the presence of others' (Carlston, 2013, chp. 38) which is actually more the focus of the service. We know already that we behave differently in different situations, how we relate with a boss is different than how we relate to offspring, and again different how we relate with a close friend than a person we don't like (Carlston, 2013, p. 502). To measure these aspects (social motives) of the self, interpersonal psychology proposes a tool called the interpersonal circumplex (Leary, 1957), see figure 3-14. It is a two-dimensional representation of personality organized around two axes - a vertical axis of "agency" with the two outer poles being "domineering" and "submitting", and a horizontal axis of "communion" with the outer poles being "loving" and "hating" (Carlston, 2013, chp. 4). All forms of social behavior can then be viewed as combinations of the four poles, but while there is empirical evidence to say that friendly forms of dominance provokes friendly forms of submission (that behavior on the loving-end of the horizontal axis provokes complementary behavior), there is not similar evidence to say that hostile forms of dominance likewise provokes hostile forms of submission (Carlston, 2013, pp. 127-128).

The manner of argumentation observed between proponents of the Doctrine of Traits and those of the Doctrine of Interactionism, is comparable to the discussion we see now in the area of Sensemaking within HCI (Kolko, 2010b) where the discourse plays out between those who view sensemaking as intrinsically founded within the person, and those who view it as a collaborative effort.

How this representation of interpersonal relating can be utilised to obtain numbers about people is similar to the approach used in the section above on Traits and Norms - we would take each of the 16 cases on the periphery and represent them as case tasks for the user to evaluate.

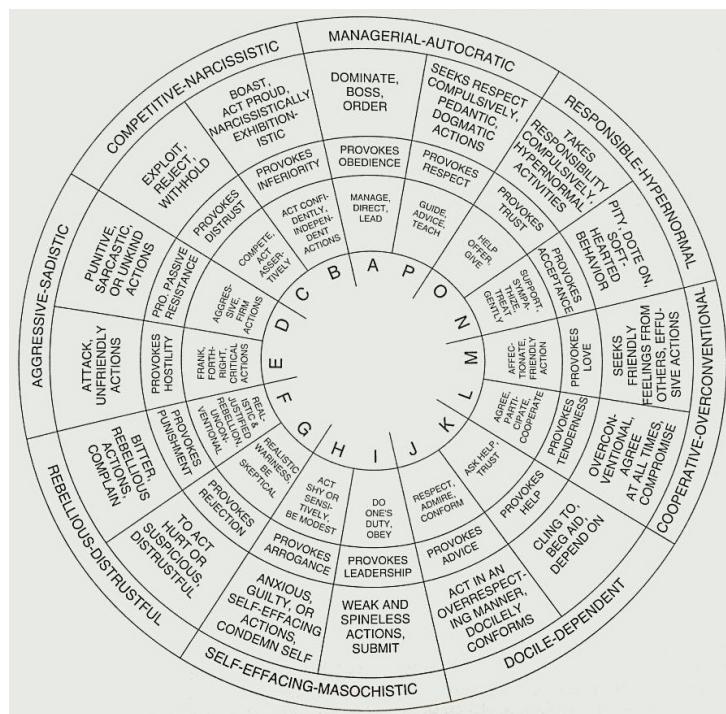


Figure 3-14: The Interpersonal Circle (IPC) as found in Leary (1957, p. 65) (Eg. Carlston, 2013, figure 4.1)

A posteriori to a dinner: Other-evaluation and Reputation

While predicting the positive/negative impression a dinner can form on an individual based solely on information obtained prior to any dinner constitute a very computer-intensive approach fraught with pitfalls in accuracy, predictions based on users actual review of dinner experiences together with their own and others Reputation presents a less computationally intensive task. Like in the days of Diomedes and Glaucus on the battlefields of Troy, the reputation of individuals is spread by other peoples evaluations - and especially so for those performing good Xenia or bad Xenia as the case may be. Likewise we here propose an approach (the results of the review will be presented in Phase 4 (section 3.4)) to embody a review and reputation aspect into the service.

In talking with one of our users about the process involved and that each participant was expected to review the dinner experience, he raised an objection to this requirement, arguing that having to review a good dinner might destabilise the bonding formed between a host and guest in the situated experience. Seeing the act of reviewing a dinner as a form of 'talking behind the back' of the host. We recognise this concern and see different implications for the two roles, but think that it comes down to the specific implementation of the review process

and how that data is used. In dinner 3, all three guests filled out the review form without objections, but the host didn't fill out the form. The review form contained questions both relating to the host, the overall experience, and aspects of the system that facilitated the experience. It is reasonable to assume that the frame through which they filled out the form was more one of "I fill out this form because this is an experiment and part of the researchers data collection" rather than a frame of "I fill out this form so that the host can improve for the next dinner" which was perhaps the frame alluded to in the objection raised. The idea with the service is not to be or allow 'reprimanding' as the latter frame would give rise to believe. The purpose of gathering reviews is to establish a reputability-score together with a 'Best known for' kind of character description. These two measures (reputation being a general symbol and known-for being specific) in turn are to be used when new people seek a dinner.

In trying to obtain these two measures we designed a Dinner review Form (see appendix D.1) that was sent out to Dinner 3 users subsequently to their dinner experience. The basic questions that were meant to be used for creating the two measures were the questions: 1) "Did you find the Host to be hospitable?/Did you find the Guest(s) to be polite?" and as an extension of this point, 2) "Briefly explain how, or in what way". These questions are positively-framed and when presented with a binary set of answers, it is believed that it will generate more positive reviews - we find this an important point. A way to further prime for positive reviews is to posit to the users the task of naming one thing that they liked about the dinner, prior to asking the more review-specific questions (Carlston, 2013, p. 24, 435). Another way to understand binary answers is by the notions of approach and avoidance in social psychology - answering that you didn't like a particular dinner/person is thereby representative of an attitude preference to avoid that experience again (Carlston, 2013, chp. 31; Maturana & Varela, 1987, p. 233).

As a mini-experiment in testing how the introduction of a ternary set of answers (I Like, I Dislike, and an ambiguous Neutral category) influenced how people actually answer, we incorporated two different question-designs and implemented both of these into different sections of the same Dinnerreview Form that was sent out to users. The difference between the two designs, as shown in figure 3-15, was that one design only allowed a binary set of options to answer from (Yes, and No), while the other allowed a ternary set (I Like, I Dislike, and an ambiguous Neutral).

The design of questions, forms the types of answers obtained because the set of options presented to the user constitute "background information" (Carlston, 2013, p. 732) of the message - the presuppositions that the message builds on. Each of these closed-type questions is accompanied by an open-ended question allowing users to give reasons for their prior answer.

Did you like the food?

 Yes
 No

What did you like the most and why?

How much did you like the SMS communication?

1 2 3

Liked it Disliked it

Briefly explain why.

How much do you like this Questionnaire?

1 2 3

Like it Dislike it

Briefly explain why.

(a) Binary set of options to answer from.

(b) Ternary set of options to answer from.

Figure 3-15: Scale-based questions incorporating the question of how much a user likes X based on a binary or a ternary set of options.

In the data for the dinner review questions we define interpersonal “agreeableness” in answer style when all the participants have attributed same value for a closed-type question, or expresses similar sentiments for an open-ended question. We define interpersonal “slope-based difference” when in a closed-type question, the values attributed to user’s answers constitute a slope of differences where each answers can be connected to an opposing answer via an intermediate answer (in a social setting this could be expressed as a situation where two people argue based on their opposing beliefs in the presence of a third person who represent a neutral belief and therefore can either serve as mediator or conform to one of the two extremes). We define interpersonal “opposition-based difference” as that situation where there are no representative of intermediate answers between opposing answers. While the ternary-design allows for slope-based differences, the binary-design only allows for opposition-based differences. For answers to open-ended questions we further define interpersonal “focal-based differences” as differences based on perceptual differences (such as when to the question of what was best about the people attending, one person replies that it was that people were open and connected/bounded, while another user replies that it was the fact that it was a multicultural setting).

Looking briefly at the answers to the dinner review we see that in the ternary-design, there were two slope-based discrepancies of the three questions that were constructed in a ‘How much do you like X’ manner. The slopes arose from users applying the Neutral-option as an answer, opposing answers where not observed. In the last question, all users exhibited agreeableness in liking the present that was given. For the binary-design there were 5 questions of the form ‘Do you like X’, 3 of the questions created agreeableness in answers, and the last 2 questions (‘Did you like the kitchen?’ and ‘Did you like Kitchy (the talking box that interrupted)?’)

created opposition in answers.

In order to really argue between binary- or ternary-designs, a more complete study involving more people should have been performed where all participants were presented the same set of questions, but half of which were given a binary design and the other half a ternary design.

Both the information obtained from an a priori approach and an a posteriori approach, can be used to present information about guests/hosts to other potential hosts/guests prior to a dinner, so as to allow them to make their own decisions on whether or not to go through. A manual override to the suggestions made by the system should always be possible.

3.3 Phase 3: Preparing to Eat

Modern life is hurried and multifarious... There is neither time nor opportunity for intimate acquaintance. Instead we notice a trait which marks a well known type, and fill in the rest of the picture by means of the stereotypes we carry about in our heads... They are aroused by small signs... Aroused, they flood fresh vision with older images, and project into the world what has resurrected in memory.

LIPPmann (1922): PUBLIC OPINION

Commensality is a step closer in intimacy compared to the multifarious everyday world that Lippmann suggests in the epigraph above. While it is true that we all carry about various stereotypes in our heads, commensality offers a scene to transcend them as will be seen in the following.

This section goes in to describe aspects of the actual Wizard-of-Oz dinners that we had arranged and the interaction participants were involved in to coordinate and signing up for commensality. The Wizard-of-Oz approach is a form of Experience Prototyping (Moggridge & Atkinson, 2007, p. 424) where users are temporarily transported *into* the service by theater, as an attempt for us to draw out evaluations of the service experience early in the project development.

Using SMS as a medium for user-interaction

Based on the interview data we decided to pursue SMS as the primary method of user-interaction in the system. Email was also offered as a way of interacting but did not generate any interactive sessions. Over the period from 1st of July to 3rd of August, 677 SMS messages were exchanged in total (see appendix C.2). 586 messages from the System to users, and 91 from users to system. While

the first SMS-session was sent to just 15 people, the last SMS-session in August was sent to 70 people. We had four main SMS-sessions (1st, 19th and 23rd of July, and 3rd of August), and for each session we slightly modified the 'session-syntax' (the implementational details of the Customer journey map, see appendix B.2). The idea of prototyping user-interaction on the SMS interface is to reach an end state where this communication can be completely automated similar to Weizenbaum (1966), and the progression towards increasing automaticity can be seen over the period. Issues also ensued as unexpected messages were received from users, but that is a common issue for all natural language processing and methods for disambiguation resolution were used or will be suggested in the following. Two (1st and 23rd of July) of the four sessions correlated with actual dinners, and a thing to note about that is that while the dinner on 1st July was arranged with a host prior to starting the SMS session, the subsequent sessions were not correlated with pre-arranged dinners so these sessions were designed to initiate users as both guests and hosts. When sessions failed to initiate users as Hosts, we took on the role as host for Dinner 4 on 23rd of July.

The following two figures show successful sign-up of guests to a dinner using two different session-syntax

17:40	Ulla	SMS	Hej der er middag fra 18:15 til 20:15 på Nørrebro. Vægter ret med fisk.plads til 2 personer. Hi there is dinner from 18:15 to 20:15 on Nørrebro. Vegetarian food with fish. Room(seats) for 2 people	
17:41	Ulla	SMS		Lyder godt. I dag ? ((Sounds good. Today?))
17:42	Ulla	SMS	Yes idag ((Yes today))	
17:42	Ulla	SMS		Det vil jeg gerne ((I would like to))
17:46	Ulla	SMS	Kan du være på <USERADDRESS>. kl.18:15 ((Can you be at <USERADDRESS> 18:15))	
17:47	Ulla	SMS		Er det eller ? Skal gå nu nemlig for at nå det....;-.) ((Is it or ? Would have to leave no to make it....;-.)))
17:48	Ulla	SMS	ja det er idag ((yes it is today))	
17:48	Ulla	SMS		ja, det tror jeg godt. Er på Nørreport nu. ((yes, I think I can. I'am at Nørreport now))
17:49	Ulla	SMS	Ok ses ((Okay, see you))	
17:50	Ulla	SMS		ses ((see you))
18:12	Ulla	SMS		Er her nu ((Am here now))
18:16	Ulla	SMS	Ok	

Figure 3-16: User Ulla signing up to Dinner 3 on 1st of July.

14:34	Ananta	SMS	Would you like to participate as a Guest or a Host at a dinner tonight? As a Host during the testperiod, Kitchy will offer to cover the cost of groceries and deliver them up to 3hours before Dinner. [Guest; Host; No answer]	
14:45	Ananta	SMS		I would like to join their as a guest :)
14:50	Ananta	SMS	Ok, I will notify you as soon as there is a dinner available. Do you have a deadline for notification? [Yes; No; Time; No answer] Kitchy http://bit.ly/kitchyfeedback	
14:54	Ananta	SMS		No, anytime is ok with me.
14:55	Ananta	SMS	Ok, I will send notification to you when there is a dinner available. Best regards Kitchy	
17:20	Ananta	SMS	There is a dinner available at 19:15 in Norrebroparken. The Host has given the following description: "my attempt of indian kichari with salmon and a salad." Do you want to join? [Yes; No; Who] Best regards Kitchy	
17:51	Ananta	SMS		Yes, I can join. Can you please tell me the exact address ? And do I need to pay for the dinner? I just want to be sure :). Hope to have a good time. Best Regards Ananta
17:56	Ananta	SMS	Good :) For this dinner the Host has made the following requests for guests: "some bread would be fine i ran out" Do you accept this request? [Yes; No] Best regards Kitchy	
18:02	Ananta	SMS		Ok, no problem. I accept the request. But, how many people are joining the dinner ?
18:06	Ananta	SMS	Good :) You have now signed up and will receive further details. Best regards Kitchy	
18:07	Ananta	SMS	So far 1 guest signed up for this dinner. The dinner is for 4 people. Kitchy recommends you each bring 1 friend. Will you bring a friend? [Yes; No]	

Figure 3-17: User Ananta signing up to Dinner 4 on 23rd of July.

In figure 3-16 the session starts with the system making the statement that a dinner is available. This is followed by a statement and a question from the user, to which the system confirms the question. At 17:42 the user sends a message that is not met with a confirmation by the system before the system sends out the next question at 17:46. Her message again at 17:47 can be seen as a rephrasing of her request for confirmation in 17:42, and while the system message at 17:48 is not a direct confirmation of this, it sufficed for her and she came for dinner in time. In her review of the SMS communication she did say she liked it because of its short and to-the-point form.

Figure 3-17 shows a session where confirmation-replies are better integrated and the message-author is always clear to the user - confirmations on SMS enhances

the users understanding of the state of the system similar to when a submit-button is pressed on a website and it then turns grey. Furthermore the session is designed to exchange information one piece at a time with the system giving the user a pre-set of reply-options to chose from. This has its drawbacks as seen in the users message on 17:51 that contains three kinds of information: 1) A confirmation to the question sent by the system; 2) a request for information on the address of the dinner; 3) a request for information on the conditions of the dinner. Each of these requests where disambiguated in subsequent messages from the system. It is noted that while a reply-format is implicitly stated in each message from the system, it is not picked up by the user. The reply-presets section was introduction following from observations in the sessions both on 1st and 19th of July, for instance here in which a user replied "We are 2. One man and woman" to the question of whether they wanted to eat with someone. From a programmatic point of view it wont be possible to parse ambiguous statements automatically in the way that humans do, so the question is always on how to diminish ambiguity. Either up front or by sending further requests for disambiguation. We believe that especially on SMS, having the system repeat the same message will not be well received because of the high personal value SMS has together with voice call (as implied by interview data). In talking with Ananta, one of the first things he said was that he thought Kitchy was a real individual. To disambiguate this point, we changed the signature line so that instead of just reading "Kitchy" it read "Kitchy the dinner robot".

Ambiguity occurred in a different form in the next example.

19:44	kpan	SMS	There is a dinner for 6 people on Wednesday 19:00, Rued Langgaards Vej 7. The Host requests that guests help bring groceries and has given the following description of the dinner: "A dinner for software developers to meet and geek out" Do you want to join? Reply with: Yes; No; Question-to-host. Kitchy the dinner robot	
20:03	kpan	SMS	A dinner has been created for 5 people on Now, Mølle Alle Valby. The Host has given the following description of the dinner: "Bring a dish spontaneous barbecue in the garden" Do you want to join? Reply with: Yes; No; Question-to-host. Kitchy the dinner robot	
20:23	kpan	SMS		Yes
20:25	kpan	SMS	Did you answer about today's dinner?	

Figure 3-18: Ambiguity in user reply 3rd of August.

Figure 3-18 shows ambiguity when the user replies Yes, but the system was in a state where the answer could apply to two different dinner-options that had been given. The systems attempt to disambiguate at 20:25 revealed that the user just wanted to see the interaction, but there are at least two ways in which the system could have disambiguated the situation before running into this deadlock:

- 1) A timeout could be introduced specifying that answers has to arrive within 15 minutes, but the drawback with this is that it then tries to impose synchronous usage patterns on an asynchronous media and even if it was a message/time of day specific timeout it would likely still filter out a lot of users incorrectly;
- 2) A queuing mechanism could be introduced into the reply-presets so that instead having *Yes* as a confirmation reply, when two dinner options have been given, the reply-presets should be *Yes A* and *Yes B* respectively.

In one occasion it was possible to run through the journey map for a user who signs up as a Host. This also happened on the 3rd of August and is shown in figure 3-19.

18:04	Balázs	SMS	<p>Kitchy has not yet found anyone hosting today.</p> <p>As a Host you receive a gift card to Omegn in Torvehallerne by Nørreport station.</p> <p>If you would like to try Hosting, please set the conditions of your dinner by replying each of these questions separated by commas.</p> <p>How many guests? Reply: Number.</p> <p>Help getting groceries? Reply: Yes/No.</p> <p>Help cooking? Reply: Yes/No.</p> <p>Help cleaning? Reply: Yes/No.</p> <p>Does it cost anything to join? Reply: Yes/No/Price.</p>	
18:18	Balázs	SMS		6, Yes, No, No, No
18:22	Balázs	SMS	<p>Ok, I have now registered you as a host with your settings. When and where do you want the dinner to start?</p> <p>Reply with: Time and location</p> <p>Kitchy the dinner robot</p>	
18:25	Balázs	SMS	<p>What groceries do you want to have help getting?</p> <p>Reply with Grocery list</p> <p>Kitchy the dinner robot</p>	
18:39	Balázs	SMS		Wednesday 19:00, Rued Langgaards Vej 7
18:40	Balázs	SMS		Filo dough, greek yogurt, eggs, feta cheese, tomatoes, cucumbers, dill, bacon
18:43	Balázs	SMS	<p>Describe your dinner in 140 characters or less. This will be forwarded to guests who then can sign up for the dinner.</p> <p>Reply with: Dinner description</p> <p>Kitchy the dinner planner</p>	
19:04	Balázs	SMS		A dinner for software developers to meet and geek out
19:14	Balázs	SMS	<p>Your dinner event is now saved in Kitchy. You will get notifications as guests sign up and what groceries they bring.</p> <p>You can change your dinner description by using the command ##DESCRIPTION</p> <p>Kitchy the dinner planner</p>	

Figure 3-19: First time user Balázs signs up as Host on 3rd of August.

In this session, the user conforms to all the reply-presets. We take it that its because of an IT-bias since the user was also an ITU student. The same does user Kasper who joined the service 1st of July.

19:28	Kasper	SMS	There is a dinner for 6 people on Wednesday 19:00, Rued Langgaards Vej 7. The Host requests that guests help bring groceries and has given the following description of the dinner: "A dinner for software developers to meet and geek out" Do you want to join? Reply with: Yes; No; Question-to-host. Kitchy the dinner robot	
19:28	Kasper	SMS		Yes
19:36	Kasper	SMS	(Pending accept from host)	
19:43	Kasper	SMS	The host requests that guests brings something from this grocery list: Filo dough, greek yogourt, eggs, feta cheese, tomatoes, cucumbers, dill, bacon What item(s) will you bring? Reply with: Name of item(s) Kitchy the dinner robot	
19:46	Kasper	SMS		Eggs, tomatoes, cucumbers
19:51	Balázs	SMS	Guest1 has signed up and will bring: Eggs, tomatoes, cucumbers Kitchy the dinner robot	

Figure 3-20: User Kasper signs up to the dinner that Balázs created in figure.

At time 19:36 in figure 3-20, the system writes that Kasper is awaiting accept from Host, but no such request-for-acceptance was sent to the host. It is a design choice whether or not to let hosts accept/reject individual potential guests. When Ulla signed up for the dinner at Maria on 1st of July we tried this design by asking Maria in-person (while she was cooking) if Ulla should be admitted. We did not explain anything about Ulla as she had just signed up and there was nothing to explain really, and when we got an "Of course" it made us think that it is significant NOT to ask anymore from the host once they have already announced that they are offering a dinner. For this reason, the message at 19:36 is more for 'winning time' in restructuring the dinner-conditions set forth from Balázs in 18:40. When Kasper confirms the conditions, a notification is sent to the host with information than an anonymous 'Guest1' has signed up for the dinner. When the day of the dinner arose, Kasper sent a request for confirmation, and the system forwarded the request in the form of a reminder to Balázs at which it became clear that there was no dinner, and that he thought it was just a virtual test.

Dinner is Ready

As mentioned back in the Introduction, in the total service experience proposed, the majority of the interaction will be Human-Human. For that reason it is worth using a paraphrasal of Bakhtin, "a dialogue is composed of an *utterance*, a *reply*, and a *relation* between the two. It is the relation that is most important of the three, for without it the other two would have no meaning", and later on when he talks about the social value of meaning "Anything that means is a sign, and since there is nothing that may not function as a sign, everything has the potential to mean. [...] understanding comes about as a response to a sign with signs."

(Holquist, 2002, p. 38, 49)

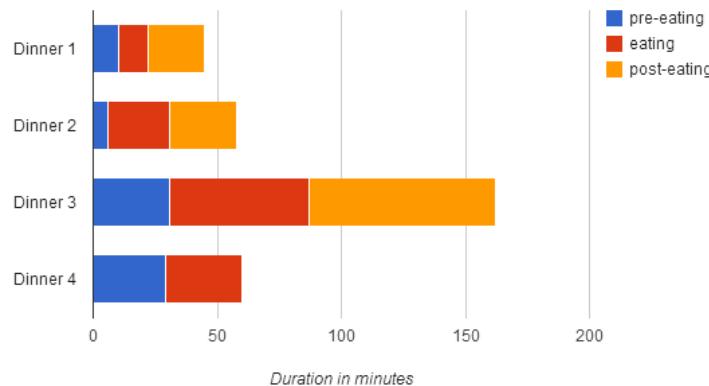
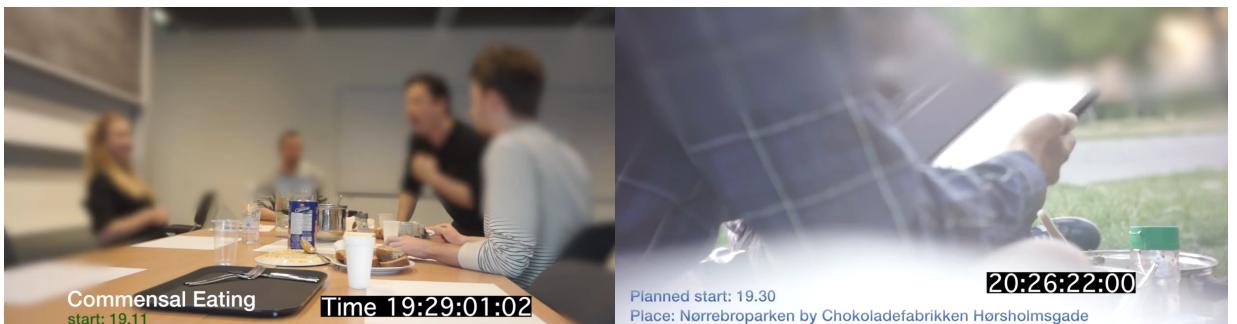


Figure 3-21: Overview of dinner durations split into three stages, pre-eating period, eating period and post-eating period.

We arranged four very different dinners. Dinner 1 and 2 took place in a classroom at ITU on 11th of May. At dinner 1 there were 4 participants initially and 1 female student joined late in the dinner - an $M - M, M - M, F$ constellation (but primarily $M - M, M - M$) where there are two groups of male couples and a single unacquainted female. Two of the participants (Akiiki and Kojo) had cooked the food and thereby constituted the hosts of the meal. Dinner 2 also consisted of 4 people - M, M, M, F . There were no real host present, but one of the participants (Pierre) had been instructed to play the host. Dinner 3 took place at the home of a private person on 1st of July. She (Maria) was the main host and had been instructed to bring a friend which coincided with her mom (Gitte) coming to visit on that day. Two other guests joined, making it an $F - F, F, M$ constellation. Dinner 4 took place in a public park on 23rd of July and had three participants in which the host was Paul - $M - M, M$ constellation. Now, in making these distinctions of the distribution of males and females and the relations at dinners, we do not wish to argue that men and women behave differently at dinners by virtue of being men and women intrinsically, but more allude to the gender dimorphism at play - how the mere presence of a person who is identified as different evokes a change in behavior of the persons environment (Carlston, 2013, p. 798) and gender is probably the most pervasive example in which this is seen.

The physical representation of Kitchy also differed between the four events. In dinner 1 and 2 it was embodied in a tall can on the dinner table, in dinner 3 it was embodied as a 10x15x10 cm wooden box placed on the kitchen counter next to the dinner table, and in dinner 4 it was embodied as a Samsung tablet placed in the middle of the participants. Figure 3-22 illustrates the three forms. The idea behind “Kitchy as a can” was to hide away the computer in an object which, while

it doesn't serve a practical purpose at the table, doesn't appear too out-of-place for the context of eating - similar to the design of Amazon Echo. The idea behind "Kitchy as a wooden box" was to further add a practical purpose as a trivet, in that it is possible to place hot pans or pots on top of it (this use case was however not adopted by participants). The idea behind "Kitchy as a tablet" was to test if existing personal smartphones/tablets could serve this customised role within commensality.



(c) Dinner 3, Kitchy as a wooden box trivet.

Figure 3-22: Different physical embodiments of Kitchy.

Most of our communication in natural language processing is a process of disambiguation (Jurafsky & Martin, 2014, Section 1.2). While we have exact duration measurements of the first three dinners, technicalities made it so that we couldn't obtain those measurements from dinner 4. The duration categories are defined thusly (Beeman, 2014): 1) pre-eating is the duration from when participants first meet until food is first put on any of the participants plate; 2) the eating period is then the time when the food is first put on the plate to the last bite has been taken; 3) post-eating period is then from the last bite has been taken until par-

ticipants greet each other goodbye. With dinner 1 the last guest, Lucia, arrived 17:38 and ate a small portion till 17:41. At this time the other participants had already been finished eating for 20 minutes, and all guests left at 17:45. At dinner 3 Bojan was late by 28min, arrived 18:47 where Ulla had been there since 18:19. Eating started 3min later at 18:50. Of all the participants only Bojan was made aware of the game rules of Xenia. During eating in dinner 1 there were 2 moments of prolonged (5sec) silence that triggered cues by Kitchy. At dinner 2 there was 1 cue, but that moment was classified more as a pattern of increased overlap between participants verbal behavior than a prolonged silence pattern. At dinner 3 there were 2 moments of prolonged silence triggering 2 cues by Kitchy. At dinner 4 there was 8 cues from Kitchy and a greater than or equal number of moments prolonged silence.

Dinner 3 stands out as the longest overall dinner at almost 3 hours from meeting to greeting goodbye (in the 75min of post-eating, the researchers also participated in the conversations for the majority of that time), while dinner 1 and 2 were about 1 hour each (even though participants said they only had time for 20 min). Dinner 4 took 1 hour just in the first 2 stages and is estimated to have lasted another 10-15min before greeting goodbye.

The dinners were recorded both on audio and video and the text transcripts hereunder and in appendix C.2 contains comment about physical behaviors/non-verbal communication where significant, but for the most part analysis will focus on verbal communication since that is the scope of the service.

What is interesting to note, and common for all dinners is that once a concrete question or other verbal task is presented is raised (be it by Kitchy or another interlocutor), it leads to a concrete answer, possibly followed by an abstracted discourse around the same topic. In the test dinners we experimented with different kinds of questions and verbal tasks and measured the duration of the subsequent period of concrete answers to give a measure of the 'talkability' of the cue posed at that point in time. Figure 3-23 gives an overview of the talkability measure of the different cues used in the different dinners.

While it is difficult to say anything in general about the cues because, as can be seen, the same cue gives rise to different levels of talkability in different dinners. The cue "What is your favorite dish" gave rise to two and a half minutes of turn-taking (Sacks, Schegloff, & Jefferson, 1974) where all participants came to word, while in dinner 4 it only generated an 8 second session. Part of the reason why the talkability of this cue (and the cue "How is the weather") is so short during dinner 4 was because the group already had raised the topic by themselves. In dinner 3, the cue "Describe your grandmothers kitchen" gave rise to a 12min turn-taking discourse while in dinner 2 and 1 it was cut short at 85second and 23seconds respectively by another participant. Cut short either *because* of an

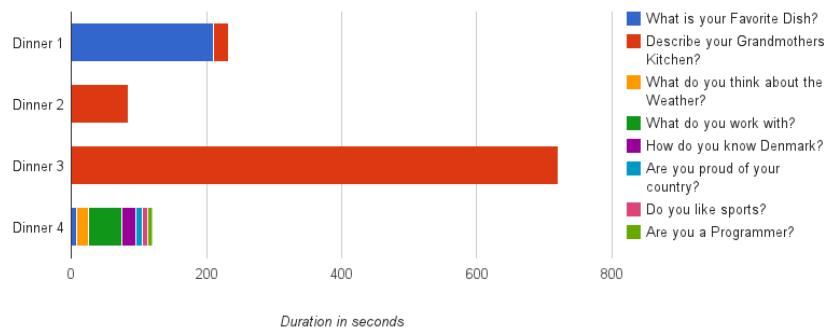


Figure 3-23: Overview of the *talkability*, the time in seconds that a given subject was discussed after it had been cued by Kitchy.

ambiguity (dinner 1 where the other participant raises a concern whether the device is recording) or *by creating* a sense of ambiguity (dinner 2 where the other participant vocalises a “That’s amazing!” in a loud sound which the talker becomes perplexed by). We think the setting matters a lot as well in keeping ambiguity within the social scene low. Dinner 3 conforms more to the ‘real experience’ of the service in which a private person (unaffiliated with the project) hosts a dinner within their home to guests who have signed up voluntarily - the ritualistic aspect of the act is more complete with all the right pragmemic triggers and the sense of the participants of being in a transcending space is felt more immanent (Beeman, 2014).

In many of the cues (9 out of 12) given during the dinners, the talkability was less than 60 seconds. Either the conversations ended and a new topic was introduced (as in dinner 1 where stories of favorite dishes ended with a question to another participant about his Danish level), or the same topic was continued in a slightly altered or more abstracted discourse (as in dinner 3 where stories about grandmothers kitchen turned into dialogue about women and working). It is presumed that short conversations around a given topic, is indicative of a sense of ambiguity about the scene (Heatherton, 2000, chp. 10) and a lack of mental scripts (Carlston, 2013, p.27). The cues given by Kitchy can sometimes enhance this ambiguity (as in dinner 4 where one of the questions was “Are you proud of your country?”) by putting forth Yes/No-type questions - the mental scripts available for such questions are of course the answers ‘Yes’ or ‘No’, but other than that it becomes ambiguous as to what story the interlocutor is supposed to present.

In none of the cues raised at any dinner, did the participants straight out refuse the talking box, instead they were cooperative, indicating their perception of Kitchy as a real interlocutor playing the role of a “responsible” actor, and thereby

provoking behaviors of friendly “cooperation” in accord with the interpersonal circumplex.

Conversational analysis of the situated experiences

We will here go on in describing one scene from each dinner in which a cue was raised by Kitchy, showing by empiri the before-and-after of each cue in the conversational scene.

17:12:13	Kojo	situated speech	{hm?}
17:12:14	Akiiki	situated speech	Paul is out.
17:12:15	Kojo	situated speech	Where is Paul.
17:12:16	Akiiki	situated speech	In my pocket.
17:12:17	Simon	situated speech	{hh}: ((compressed outbreathing single-laugh while mouth is full))
17:12:18	Lars	situated speech	He is in your pocket?
17:12:19	Akiiki	situated speech	{he he he} You know Paul is not here then he is asking me where is Paul.
17:12:20	Kojo	situated speech	Where is he go.
17:12:21	Lars	situated speech	{hm:→} ((nasal non-confirming acknowledgement))
17:12:22	Akiiki	situated speech	I dont know.
17:12:23	Kojo, Simon Lars, Akiiki	mediated speech (5) What is your favorite <dish>. ((when the box starts talking everyone freezes and looks at it))	
17:12:24	Simon	situated speech	{hh}: ((compressed outbreathing single-laugh while mouth is full)) {he he he .hh:} What is your favorite fish?
17:12:25	Lars	situated speech	Dish.
17:12:26	Simon	situated speech	Dish.
17:12:27	Kojo	situated speech	I think it was a dish. {hm..} ((nasal pondering))
17:12:28	Simon	situated speech	(3) Superkanja.
17:12:29	Akiiki	situated speech	Superkanja?
17:13:00	Simon	situated speech	Rice* (0.2) rice and meat.
17:13:01	Kojo	situated speech	Rice and meat?
17:13:02	Lars	situated speech	Yes.
17:13:03	Kojo	situated speech	((starts laughing))
17:13:04	Simon, Akiiki	situated speech	(0.2) ((Sits up in surprise)) It doesnt matter what meat h?, just rice and meat.
17:13:05	Lars	situated speech	Cow. Cows meat
17:13:06	Kojo	situated speech	

Figure 3-24: A scene from Dinner 1

Figure 3-24 illustrates a scene from Dinner 1. Because the ‘setting’ (Hymes, 2001) for this dinner is ITU and neither of the two hosts (Kojo, Akiiki) were students or affiliated with ITU, that this setting induced a feeling of being an

outgroup even though they were hosting the dinner. In that light, the dialogue between Kojo and Akiiki prior to the cue can be seen as a tension and an attempt of Akiiki to get in contact with Lars or Simon by making a joke(time 17:12:16), and when the joke fails he then tries to explain(17:12:19) and subsequently returns to answering Kojo's request (17:12:22) upon which the dialogue ends as neither of the participants can satisfy the request - neither participant has a script that suffices. The first cue (17:12:23 "What is your favorite dish?") further highlight a tension as Akiiki mentions the name of the dish "Superkanja" and Kojo breaks in shortly thereafter saying "Rice" (and meat) in a slightly louder voice. Both utterances being repeated by Simon and Lars respectively with rising intonation to signify their interest to know more. While Kojo ends his story by saying he likes cow meat, the three other participants take turns and talk for 3min 30 seconds in total about this subject after which Simon changes it by asking Kojo how his Danish is coming along. The next cue ("Describe how your grandmothers kitchen looks like.") occurs approximately 8min later in a scene where Lars and Akiiki had been in a dialogue about why Akiiki was wearing 3d glasses. When the cue was introduced, Lars started out but was interrupted after 23 seconds by Akiiki who pre-anticipated what he was about to say ("clean and neat and tight") and then said that he was not sure that the recording device was working properly.

Figure 3-25 illustrates a scene from Dinner 2. This dinner took place at exactly the same location as Dinner 1, but all the participants where students gathered from ITU. Only Liisi and Mads actually ate something during the dinner. Haru was silent for the most part of the dinner except for the beginning where Mads, upon finding out that he was the only Danish representative, said that he felt like he should be the one asking where people came from, and thus asked Haru who was from Japan. In this scene Liisi has been talking for a while about Sticks'N'Sushi and the chef-schools they have in Copenhagen. Mads, upon realising that she was talking about a Danish company, makes his interjection at 19:28:24 after which a rapid exchange of different kinds of information between the three parties Liisi, Mads and Pierre is performed and Liisi vocalises a high-pitch sigh at 19:28:30 - either a "spill cry" or and "audible glee" (Goffman, 1981, p. 99, 106). The cue issued here was not based on a period of prolonged silence, but upon an interpreted pattern of rapid exchange of short interjections and escalating volume levels. The cue ("Describe your grandmothers kitchen."), though inaudible at first (19:28:45) was repeated (19:28:50) on request from Mads. Though disparaging himself as having anything to say on the subject in (19:28:52), he resumes the storytelling position in (19:28:54) with confirmation from Liisi and to a lesser extent Pierre who directs the role to Liisi in 19:29:00. Liisi initially thinks she didn't have a grandmother either, but then recalls that she had and goes on telling the story for another 1min20sec approximately when Mads shifts the conversation to the colors

19:28:25	Liisi	situated speech	They are Danish
19:28:26	Mads	situated speech	Oh I thought you meant like in Japan
19:28:27	Liisi	situated speech	Sticks and Sushi?
19:28:28	Pierre,Mads	situated speech	((some kind of confirmative utterances and nodding to display mutual agreement))
19:28:29	Mads	situated speech	I rarely eat Sushi ever
19:28:30	Liisi	situated speech	((high-pitch sigh of unimaginable surprise))
19:28:37	Mads	situated speech	I cant afford it, its really expensive ((makes an inaudible comment about the current meal that makes the others laugh))
19:28:45	Pierre,Liisi Mads,Haru	mediated speech	<?>mothers kitchen.
19:28:46	Mads	situated speech	What?
19:28:47	Haru	situated speech	What was that?
19:28:48	Mads	situated speech	What? Sorry.
19:28:49	Liisi	situated speech	{ah;} Awkward pause time maybe?
19:28:50	Pierre,Liisi Mads,Haru	mediated speech	Describe your grandmothers kitchen?
19:28:51	Pierre	situated speech	{hiii;} ((prolonged outbreathing single-laugh))
19:28:52	Mads	situated speech	My grandmother? Well, I dont have one so, maybe another one of you
19:28:53	Liisi	situated speech	{hi hi hi, hi} Does anyone have a grandmother, lets start from this {hi hi hi}
19:28:54	Mads	situated speech	It was probably old and, with lots of weird pans.
19:28:55	Liisi	situated speech	{eh hi hi} and ovens and pots and
19:28:56	Pierre	situated speech	Yeah thats what I got thought as well ((coughing laugh)). Lots of pots and pans?
19:28:57	Liisi	situated speech	And ovens.
19:28:58	Pierre	situated speech	And ovens right, yeah
19:28:59	Mads	situated speech	And cookies, she really really liked cookies
19:29:00	Pierre	situated speech	((elongated nod from neck)) {mm→} definitely yeah, yeah: (0.7) ((turning to face Liisi)) your:: grandmother's from: (0.5) who was Ukrainian and Estonian from your family.

Figure 3-25: A scene from Dinner 2

and build-quality of kitchen gear at that time versus today.

19:46:00	Gitte,Maria Ulla,Bojan	situated speech	[EATING FINISHES] ((Bojan takes the last bite of what was on his plate. Gitte and Ulla have put their forks in alignment with german traditional signal for 'finished'))	
19:51:00	Gitte,Maria Ulla,Bojan	situated speech	((Bojan, and Maria are reconfiguring, Maria picked up her shirt which had glided off from Bojan' chair, Ulla is nodding and making nasal confirms while Gitte is talking))	
19:51:01	Gitte	situated speech		Jeg ved ikke om I kan forklare det på på engelsk ((turning to face Maria)) men det er faktisk 1800tallets bevægelser der har så skelsættende betydning for, hvorfor vi er så, altså, det er jo ikke et Dansk fænomen det er jo et nordisk fænomen, men vi adskiller jo os jo fra resten af verden. Kan I forklare det? Jeg kan ikke forklare det. ((I don't know if you are able to explain it in in English ((turning to face Maria)) but it is actually political movements of the 19th century that are at the root of, well now it isn't just a Danish phenomenon it is a Nordic phenomenon, but we do stand out compared to the rest of the world. Can you explain that? I can't explain it.))
19:52:10	Maria	situated speech		{ehm:}
19:52:14	Gitte,Maria Ulla,Bojan	mediated speech	Small, [Ding]. Small service announcement The dinner has been going on for, one hour now {eh:} (0.2) Most {eh:} (0.4) weekday dinners {eh:} (0.1) are on average forty five minutes. Do you want to, continue the dinner?	
19:52:15	Bojan	situated speech		Depends on you ((pointing to the others))
19:52:16	Maria	situated speech		Jah: {hi hi...h}
19:52:17	Gitte	situated speech		Jah: ((leans back in the chair and then comes front again facing Maria while Bojan checks the time on his mobile))
19:52:18	Ulla	situated speech		Ja?
19:52:19	Maria	situated speech		I could seriously use {ah:} smoke a cigarette right now ((Gitte makes a discontent outbreak)) if that's ok with you.
19:52:20	Gitte	situated speech		Your mother dont like ((Maria says "I know" and shys away)) when you are smoking, Maria
19:52:21	Maria	situated speech		(1) You are smoking?
19:52:22	Ulla	situated speech		No, no. ((shakes her head and makes a flat horizontal hand movement))
19:52:23	Bojan	situated speech		((cuts off from something Maria was saying)) >I'm not a smoker<, but can I:, I just want t (0.1) I want to remind myself, can I smoke.
19:52:24	Maria	situated speech		Yeah? Yeah.
19:52:25	Ulla	situated speech		{he he he}
19:52:26	Gitte	situated speech		Then, then we can explain what I ment, afterwards
19:52:27	Ulla	situated speech		Y.es. ((five nods from the neck in diminishing extent, starting from 30 degree, stacks her plate with Bojan))
19:52:28	Gitte,Maria Ulla,Bojan	situated speech	((Bojan takes the plates to the sink and they start praising the food by cue from Gitte and talking about their feel about it)) ((Bojan and Maria leave the room and Gitte talk with Ulla about the experience in total and how she felt that they connected in the dialogos))	

Figure 3-26: A scene from Dinner 3

During dinner 3, the 'pattern of discourse' (the turn-taking switches between storytellers, questioners and listeners) changed in very interesting ways. In very generalising terms it seemed as if when Ulla arrived the dialogs were in a way centered around Ulla (her current experiences and background), when Bojan arrived the dialogs were similarly centered around Bojan initially, but when the first Kitchy-cue was given the discourse switched into a more equal turn-taking form of storytelling. Figure 3-26 illustrates a scene from Dinner 3, a few minutes after eating had finished, at which Kitchy cues with a 'Service Announcement' based on the duration of the current dinner and giving a fictitious number for 'average week-day dinners'. The conversation has revolved around the culture of Denmark because Bojan asked the question of how it came to be what it is today with equal rights and high living standards. Gitte who was not as proficient in English but

really wanted to offer an explanation, has resorted to explain it in Danish and asks one of the others if they can translate it (19:51:01). When the cue occurs at 19:52:14 with the question of whether they want to continue the dinner, Bojan says that it depends on the others. Maria's elongated 'Yes' (19:52:16) and subsequent statement that she could use a cigarette becomes the signal and mutual agreement of the group to exit from the eating-scene and enter a more lounging scene where dialogs can continue.

20:26:00	paul,Jared Ananta	mediated speech	<?>	((Ananta mentions that the sound is not clear, so paul tries to adjust the volume but it doesn't help))
20:27:00	paul,Jared Ananta	situated speech	((conversation about how they found out about service and then about how many people we have contact from, and how the service has changed over the months))	
20:30:00	paul,Jared Ananta	mediated speech	What do you guys work with?	
20:30:01	Ananta	situated speech		What do you guys?
20:30:02	paul	situated speech		Work with.
20:30:03	Ananta	situated speech		What, you work?
20:30:04	paul	situated speech		Yeah;
20:30:05	Ananta	situated speech		Oh ah, we work some stuff, like I work some time ago in a Pizza store
20:30:06	paul	situated speech		Wh<>?
20:30:07	Ananta	situated speech		*Pizza* store
20:30:08	paul	situated speech		Yeah? Yeah
20:30:09	Ananta	situated speech		like {eh;} helping in the kitchen. But now I'm not doing this so I, I'm just, having some, free time now.
20:30:10	paul	situated speech		How about you. ((turning to Jared))
20:30:11	Jared	situated speech		{ehm;} I'm working with delivering stuff actually
20:31:10	paul,Jared Ananta	situated speech	((conversation turns about how much one is allowed to work in DK as citizen or immigrant))	
20:31:40	paul,Jared Ananta	mediated speech	How did you know about Denmark?	
20:31:45	Ananta	situated speech		How, did we, know?
20:31:46	paul	situated speech		Know about Denmark.
20:31:47	Jared	situated speech		<Happiest country in the world?>
20:31:48	paul,Ananta	situated speech		((courteously laughing))
20:32:00	Jared	situated speech		Who doesn't know about Denmark? (2) Really?
20:32:01	Ananta	situated speech		So, what do you think about Denmark, I mean, you're grown up here
20:32:02	Jared	situated speech		<Are you the happiest person, in Denmark?>
20:32:05	paul	situated speech		No.: {eh;}
20:32:06	Ananta	situated speech		Happiest person, in the happiest country. {he:}

Figure 3-27: A scene from Dinner 4

Dinner 4 with its 8 Kitchy cues, is the dinner with the highest number of interventions. Similar to dinner 3 where dialogs initially centered around 'the new person' compared to those who knew each other already, the free conversations here also tended to revolve around Paul who was 'new' to the other participants.

Due to the setting which this time was in a public, crowded park, the fact that the loudspeaker in Kitchy was not strong enough, and probably also due to the type of questions asked by Kitchy and that Paul was researcher behind it, the participants incorporated a speaking style half-way in, in which when a cue was raised, the response was not given to 'the participants' but instead directed 'to Kitchy' using louder words and clearly facing the device. Figure 3-27 illustrates a scene from Dinner 4. After a conversation about how Ananta and Jared found out about the service, the cue at 20:30:00, upon being repeated by Paul (20:30:02) becomes the source of a series of quickly finalised exchanges for 50 seconds after which conversation turns into general working rules in Denmark. A second cue ("How did you know about Denmark?" at 20:31:40) that was similarly repeated, becomes a joke with a comment of "Who doesn't know about Denmark?" (20:32:00) after which the conversation shifts to 'What do you think about Denmark?' - talkability of the second cue is then 20 seconds.

3.4 Phase 4: Digesting Experiences

Upon returning to the everyday world from a dinner with others, one is not the same person as the one who first stepped in the door. Common ground is distributed in each of the participants who carry it with them on their individual journey, the ritual transforms the individuals (Carlston, 2013, p. 732; Szatrowski, 2014, chp.2).

In the process of gathering the experiences of those who participated in commensality, we again tested different approaches: 1) small post-dinner in-person interviews; 2) more formal review questionnaires sent out on Google Forms; and 3) an informal question over SMS.

An SMS was sent out to Ananta and Jared at 22:34 with the message "I assume that the dinner must be finished by now. Did you like the dinner experience? Reply [Yes; No] Kitchy the Dinner Robot" but instead of triggering a response on SMS, one of them used the link to the Feedback Form that was contained in a prior SMS to submit the review 1 O'clock at night. This again highlights the notion that users perceive the SMS messages coming from the system as originating from a real person instead of a machine that is always online.

In-person mini interviews

These mini interviews were conducted around 30min after dinner 2 had finished, with the guests that had participated. Since some of the participants had already left by then, the interviews were done with those still present as a loose and open interview. There was one of the participants from dinner 1 and three from dinner

2. At the time of the interview, we had a hypothesis that eating and socialising for an hour-long dinner would drain a persons energy, and this was raised as a common question to each of the 4 interviewees. None of the interviewees reported to feeling depleted in energy.

Lucia - Dinner 1

Lucia came late in the dinner but said that she thought it was a nice, cosy and relaxing experience. She didn't feel a problem talking and remembers that it was actually easier for her because the others were already talking when she arrived. She remembers they talked about the food and that it was spicy and that she agreed that it was spicy. If she should try it again with others she says it would be important for her to know that it would be with some people that she knows she has something to talk about - she mentions that she knows some people who likes to talk a lot about politics and she doesn't know politics so for that reason she wouldn't feel comfortable going to dinner with them. She thinks it would be the same if she was at a dinner with someone much older than her like forty or fifty. She also thinks that as a guest there would be more pressure on you: thinking about how you look and which seat can you take and worrying if you are going to do something wrong during the dinner. As a host you are likely to feel more comfortable because it is your home.

Liisi - Dinner 2

Liisi thought the dinner went really nice. On the question of whether she would try if it was a real live application she says yeah, but she is not sure she is the target group for it because she cant see she would be likely to be seeking such offers. Right now it just feels weird that strangers meet to eat, she says. Framing it in the way that people are lonely and wanna get together makes the concept sound like a freak show she says, if the purpose was networking or something else she would be able to relate more easily. She also mentions that to try and get something like this out to the general public would require a lot of promotion and probably also some public famous person to represent it so people will feel more OK.

Haru - Dinner 2

Haru also thinks the dinner was nice. He said that it was an interesting experience and that he wouldn't mind trying it again if it was an actual service. "Why not", he says, he doesn't need an extra reason.

Mads - Dinner 2

Mads thought the dinner was fun. He likes meeting new people in general, it isn't a problem for him, and while he recognizes that awkward silences does bother him, it's also something he is good at getting out of usually. The 'smartbox' is interesting he says, especially the spontaneous nature of it and he envisions how it could be used in some crowd too to spurt out random comments. He's not sure if he would buy one, but he is definitely intrigued and wouldn't shy away from one. He suggests that it should be a smartphone app too, and maybe with a pop-up as an alternative to the speech interface - that way it would also be more portable. He liked the other participants too, and thinks that next time he meets them somewhere at school it will be a little less awkward due to having eaten together.

Questionnaire Form

The questionnaire sent out can be seen in appendix D.1. It was sent and filled out 6 days after the dinner. It is divided into six parts: 1) Questions about who is filling out the form, when the dinner took place, whether the participant liked the dinner, and whether they were a host or a guest; 2) Questions about the dinner experience for the guests; 3) Questions about the dinner experience for the host; 4) Questions about aspects of the service; 5) Norm-revealing task; 6) Questions about their motivations, how they heard about it and who they would like to dine with in future occasions. Only the guests (Ulla, Gitte and Bojan) filled out the questionnaire. Bojan filled out the Host-path by mistake and didn't get to answer the Guest-specific question on whether he thought the host was hospitable - instead he answered Yes to the Host-specific question on whether the guests were polite, and we assume he also thinks that the actual host was polite.

Questions were for the most part presented as task-pairs where the participant first has to assign a categorical value to a topic that represents their sentiments about it, and then subsequently explain why they assigned that value. This allows us to see where discrepancies occur and get insight into why they occurred.

Of the 55 discrepancy-relevant questions, discrepancy was found in the answers to 24 questions and agreeableness in 21 (see explanations of discrepancies and agreeableness in section 3.2). The majority of the opposition-based (and a few of the slope-based) discrepancies were correlated with differences of focus.

In section 1 positive agreeableness was found in the question of whether guests liked the dinner experience. When asked about the sentiments towards the food in specific there was also positive agreeableness. Difference in opinion was observed on how people liked the kitchen, advocates thought it was "Messy in the good sense" and that it had "style" but opponents said it wasn't that cozy in and of itself. All guests liked the conversations and the people at the dinner - conversations quickly

turned relevant on a personal level and people managed to open and connect despite representing different nationalities, religions and ages. While one of the guests didn't like the Kitchy-box and that it felt like someone was spying on them, the other guests did and thought it a fun extra guest and particularly liked the 'Sit in 1min of silence and reflect on the food' cue that it gave and one point. The question of whether it should cost money was asked in two sections (once for the dinner and once for the system). While one person was in favor with the argument that food costs money, so why not just chip-in with a pre-defined amount by default, other guests were against it saying it's a hard concept to deal with and that the presence of money would change the relations between people. All of the guests liked the host and thought she was kind and forthcoming, and created a good atmosphere for the dinner that made it cozy. None of the guests felt particularly well-informed about the system neither before or after the experience and when asked to describe it shortly they thought it was difficult, but that it somehow had to do with people, strangers, coming together over a shared meal in which Kitchy plays the role of a kind of meeting facilitator. Of the two people who participated in the SMS system, one was neutral about it saying it was unclear whether there would be a dinner while the other person liked it and thought it was short and precise. Guests liked the presents that they had been given during the dinner saying it was unexpected for them and that it was a kind gesture, but not necessary since a free meal is a present in itself. Guests were modestly positive about the questionnaire and understanding about the need to get answers on paper instead of the conversations we had subsequent to the meal already. In section 6 on Norms, opposition (where participants express opposing sentiments and no-one holds a Neutral position) was observed 3 times (For the questions: Can a guest be asked to help to prepare the food, clean up afterwards, or fix something in the home), slope-based differences were observed 4 times (Bring food for potluck, bring groceries, make desert, do a performance), the 6 remaining questions of this section where observed to show positive agreeableness (Bring a bottle of wine, any gift or just yourself; Relax and feel at home; Help keep the conversation going; Follow cues from the host and be helpful in any way).

In the last part of the questionnaire, guests were asked on a 5-point scale symbolising *knowingness* about a person, who they would like to eat with in a future event. To this there was a preference towards eating with others who they knew very little or nothing at all about. They say it feels adventurous, unusual and interesting and that meeting new people over a meal is a good place for it. One also comments that seeing new faces is part of the experience, the surprise about who shows up is important so it is fine for Kitchy (without too many restrictions/criteria) to do the selection and send out invitations to potential guests.

Question over SMS

For dinner 4, an SMS was sent out to guests subsequent to the dinner, the same evening. The idea with this was to lower the barrier for reviews, and that participants would be able to evaluate different aspects of the experience and service by replying to a series of SMS questions. Figure 3-28 shows the first message of such a series send out to both Ananta and Jared.

22.34	Ananta	SMS	I assume that the dinner must be finished by now. Did you like the dinner experience?
			Reply [Yes; No]
			Kitchy the Dinner Robot

Figure 3-28: Review question sent over SMS.

As described in the section 3.3, when Ananta and Jared first interacted with Kitchy over the SMS interface, they thought Kitchy was a real person. This might also explain why they didn't reply to this message - respecting a 'late-night curfew' for mobile communication between people who are not close. Instead, around 1 on the same night, an anonymous user submitted an answer to the general feedback form, giving positive feedback and the comment that it was a great experience. The link to the general feedback form was given in a previous SMS to Ananta so it was likely him who submitted it.

Chapter Transition

This was the process of this project. Our problem formulation was stated as an exploration of the role of communication focused around the topic of ICT and commensality of unacquainted people. Through this process we have accumulated a lot of data, most of the important parts has been presented here, but much is also still to be found in appendixes while some is simply omitted. In the next chapter we will start a process of narrowing down, presenting the main findings and discuss what they mean for the design of the service.

Chapter 4

Findings and Analysis

Here we bring out the findings that have been gathered through the process. For each phase of the process, we present the findings as a list of statements. After that we talk about some selected findings and present hypothesis and/or suggestions for how they could be approach differently.

4.1 Findings

Phase 1: Hunting for Information

From Phase 1 of our project we recollect the following findings:

1. Eating routines of families and couples are more stable than those of single students.
2. Resourceful families and couples look to *clubs* (Networking-clubs, Dog-clubs, Playgroup-clubs) as a platform for unacquainted commensality. Students and people from less-resourceful homes look to fulfil belongingness needs and/or adventures via unacquainted commensality. For students, convenience and economy are seen as significant co-factors as well.
3. No one searches to join public dinners, they only get to experience them if someone from their existing network introduces them to it.
4. Food is regarded as a (social) pleasure only if you are in a position to eat with others. If not, food is often disregarded as mere energy. But here it can at times, also have a comforting value.
5. Students at Tietgenkollegiet express a higher need for social variety than any of the other locations. Indicating problematic side effects of their every-

day scenes (the rotating kitchen-dinners) or settings (the architecture of the building) or community norms.

6. Dinner is more important than both lunch and breakfast, but whether lunch is more important than breakfast or vice-versa is highly contested.

Phase 2: Gathering Test Subjects

Our findings from Phase 2 of the project is summarized here:

1. People mostly don't answer emails from unacquainted people representing some institution, but they do read them.
2. Being participatory in communication is good if you want participation (*cool* media, *cool* language, is better than being *hot* (McLuhan, 1994)).
3. People join the service and want to participate.
4. Word of mouth is significant, but not well understood or studied.
5. Asking people in-person is the best way (in the duration of this project), to gather participants.
6. Incorporating a game structure makes the service easy to understand.
7. People can be characterized in various ways and the choice of characterization approach determines what can be said and hypothesized about their interactions with others.

Phase 3: Preparing to Eat

Findings from the phase of the project where we conducted dinner experiments.

1. SMS as an interaction platform works, but needs to be done very carefully.
2. Prolonged silences and/or patterns of discussion (intonation markers and other phonemes) do occur during dinner.
3. Mediated speech acts changes the scene participants are situated in.
4. The time spent together after eating seems to be related to the time spent eating.
5. Dinners in private settings (shielded from the presence of non-participants) are longer than dinners in public settings (open to the presence of non-participants).

Phase 4: Digesting Experiences

These are the findings from Phase 4. It reflects the evaluations made from the people who participated in commensal dinners and how we obtained reviews.

1. There are many ways to obtain reviews and a multimodal approach would be best to enable free expression.
2. People like to eat with others and it enhances their mood.
3. Eating together establishes acquaintances and common ground (Kashima, Klein, & Clark, 2007).
4. Commensality are intimate experiences in which you talk about things you wouldn't talk with strangers about.

4.2 Analysis of the Findings

While some of the findings presented we consider self-explanatory, we will select a few to discuss in more detail.

Phase 1. Point 1) The multiple realities - the scenes and settings of the everyday world

Eating habits are routinely periodic (habitual) if allowed to be so. We hypothesize that the reason why some students eating habits fluctuate more than others (both other students and family/couples), is because the scenes in which they live are more fluctuating. The scenes fluctuate both because of the neighbor-stance relations they have, but more so because of the structure of education where each new exam and each new course is *new* and presents a challenge to self by a form of existential anxiety (Heatherton, 2000, p. 8) as upheld by societal norms. Neither the neighbor-relations nor the education-relations, are something which the student are easily able to control the form of but have to adapt their selves within. Coupled with the finding that single students often eat alone, and that the value of food is situational, food is devalued and apt to be skipped completely.

Phase 1. Point 5) Rotating Dinners

While from a theoretical perspective on the culture of gifting and rituals (Mauss, 1954; Carole Counihan, 1999; Gennep, 1960), the performance of commensality should in itself induce reciprocal behavior in which hosts and guests take turn switching roles roles in ongoing performances of commensality, concern was raised

in different forms in both interview data and dinner feedback. One of the interview subjects (see "GK2" in appendix A.2) said that his participation in a service like this would directly depend upon how well the service ensured that people did not just freeride. As mentioned in Boyd, free-riding constitutes a violation of the principles of a cooperative relation and offers temptation of short-term advantage unless punishment reduces benefits and increases costs (Boyd, 2009, p. 303). At both the dormitories at Grønjordskollegiet and Tietgenskollegiet there were already mostly functioning rotating dinner arrangements put in place, and more comments from interview subjects (see 'GK2', 'KMV5' and 'PLV3' in appendix A.2) indicate the concept of rotating dinners being used both in private friend-networks and either neighborhood or 'common-interests' networks. Comments from other subjects ('KMV4', 'GK2' in A.2 and Ulla from Dinner 3) suggests that money or helping each other with practical issues, also could be forms of reciprocation, but warns against going so far as to talk about explicit exchange of services.

Phase 2. Point 3) People join the service and want to participate

But they also have their individual preferences for what specific dinners they want to join. Preferences are dynamic phenomena. One day I want to eat Pizza the next day I want to eat Sauerkraut - when I was young I ate anything, now I am a vegetarian. Some preferences change on a daily basis, others are intact for several years until they change. From the accumulated set of comments from interview subjects, we see that besides matching dinner-offers to dinner-invitees on the aspects of location, food and people, it is also important to allow users to add their long-term preferences (or *intolerances*) to the set of criteria. Long term preferences like smoking(occasional or regular)/non-smoking, pets or no pets, and kids or no kids. Aside from this we think it would also be good to encourage hosts to state an *expected dinner duration* on creation of dinner events so that guests also can evaluate what their preferences are with respect to time.

Phase 2. Point 6) Conforming to the structure of game

In the section introducing the concept of xenia (Section 3.2) we talked about these rules only forming one aspect out of seven structural elements that constitute a game according to Avedon (1971). During the project several comments from users has pointed to different aspects that can be understood by reference to this structural representation of a game. People have been making comments like: "there are many social groups and I think you *need* common purpose to go there...

to just meet up with a bunch of people that [/where] you dont know, what the purpose is, I think that would be weird”, what if people “were just out to score some free food?”, and “I mean, going to someone you dont know seems a bit strange.. I guess [I would need to know] how many people are coming.” These comments point to the structural game elements of: 1) Purpose, 2) Rules governing action, 3) Number of required players, 4) Roles of participants, 5) Participant interaction patterns, and 6) Pay-off for participants. The element which hasn’t been commented upon by users is *Procedures for action*, as the procedures where already understood by reference to the concepts of dinner, dinner invitations and eating together.

Our presentation of the rules of Xenia were fairly short and ambiguous. It would be interesting to experiment with making them more explicit, examining if people feel more safe when rules are explicit vs if they are implicit and ambiguous. The rules could be made more explicit by describing the roles of the host and guest thusly:

- If a host, welcome strangers by offering them food, drink, the bathroom and the most comfortable chair, and do not ask them questions until they are satisfied and comfortable.
- If a guest, be respectful, charming, entertaining and dont outstay your welcome.
- Both parties should give a gift on arrival or departure if they have, to consecrate the guest-friendship.

Phase 3. Point 3) Using Kitchy to disambiguate the social scene

TYBALT: Uncle, this is a Montague, our foe, A villain that is hither come in spite, To scorn at our solemnity this night.

CAPULET: Young Romeo is it?

TYBALT: 'Tis he, that villain Romeo.

CAPULET: ... I would not for the wealth of all the town; Here in my house do him disparagement:... Show a fair presence and put off these frowns, And ill-beseeming semblance for a feast.

TYBALT: It fits, when such a villain is a guest: I'll not endure him.

CAPULET: He shall be endured: ... You'll make a mutiny among my guests!

SHAKESPEARE (1595). ROMEO AND JULIET: ACT 1. SCENE V

In this quotation above, there isn't really a sense of an ambiguous scene. Tybalt (who perceives Romeo as a villain), upon recognizing that Romeo is present at the party as a guest, wishes to quarrel. But Capulet, who is hosting the party, enforces his will to state that during the party all guests are guests and all guests shall be endured at all costs. While Kitchy would be a weak actor in trying to resolve interpersonal conflicts like this, there are ways in which it can remind participants of their roles as guests and hosts respectively and offer topics that maximise a turn-taking storytelling form of behavior as a way to establish common ground.

Based on our experience prototyping sessions, we propose that Kitchy interrupts a maximum of 2 times by default and then employ a more cautious mode of interaction if further instances are observed - instances of prolonged silence patterns, conversation escalation patterns, or just if the eating period exceeds 60min (if the device is always on the dinner table, this can be measured automatically by the direction and volume of participants speaking).

The first cue: Repeating the roles

The first cue being issued ideally just when the food is placed on the table, before eating, and should be of a form that tries to disambiguate the scene by re-stating the roles (turning 'men', 'women', 'Danish people', 'old people', 'villains' into 'guests' and 'hosts'). Because all participants signed up through Kitchy, the information of relations is already known to the service, but an automated verbal performance of it will have an effect on the scene we profess. This first cue could be illustrated as such:

Kitchy: Hello? Can I say something?
People: (Yes)
Kitchy: Good, thanks. I cant see anything, so I just want to make
sure everyone is here. Is the host here?
Host: (Yes)
Kitchy: Perfect, is the friend of the host here?
Friend: (Yes, I am here)
Kitchy: Splendid, are the two guests here?
Guests: (Yes, we are here)
Kitchy: Excellent, big thanks to all of you, and the biggest thanks
to the host for creating this wonderful dinner.
Now, I want you to take a moment and just admire the food
you dont have to say anything, but find out which of the
colors and smells that is your favorite today.

This approach illustrates a "framing" of the situation (Kolko, 2012, p. 54; Bateson, 1972, pp. 187-188), and it is also a way of establishing communion (Hayakawa, 1949, p. 80). Kolko (2012, p. 54) further recommends for the facilitator to state

the purpose of the meeting explicitly so as to help participants remain focused. The purpose being framed in a way that constitute a valid value proposition for the participants. In our case when part of the service is to measure characteristic properties of the participants, we assume that such value propositions can be scripted to fit a limited set of general characters.

The second cue: Creating common ground through storytelling

The second cue should then be issued sometime during the dinner as triggered by one of the three detectable instances (silence, escalation, or eating-duration). The purpose of this cue is to maximise turn-taking behavior and storytelling as this is the basis of creating common ground (Carlston, 2013; Kashima et al., 2007, chp. 35).

The closer analysis of the turn-taking behavior occurring for cue 1 in dinner 3 (the 12min conversations about grandmothers kitchen) reveals that while Gitte and Maria took 2min and 3min respectively in telling their stories, Bojan and Ulla took 3min and 30seconds each. The *talking stick* was passed informally from when Gitte started, then passed it to Maria. When Maria seemed to have finished, Gitte passed it to Ulla, who when finished passed it on to Bojan herself. While it isn't necessarily bad that one of the participants takes charge of passing the talking stick around, a way that Kitchy could ensure that each person was given the same amount of onstage time is by announcing in connection with the cue, that each participant will get 3min each after which a bell will signal that it is time to change. That will offload some of the responsibility and make turn-taking more enjoyable we hypothesize.

To answer the question of which kind of speech acts that maximise turn-taking behavior and storytelling, we can go back to our data and also make some guesses based on a description of the list of speech acts.

Speech acts	Presuppositions
1. What has happened recently that made you happy?	Awareness of positive past events for self
2. What do you look forward to in the next week?	Awareness of positive expectations for future events
3. What is your favorite inanimate object in this room?	Awareness of present objects of positive attribution
4. What is your favorite dish?	Interest in food as pleasure
5. Describe your grandmothers kitchen	Memory/Experience of a grandmother with a kitchen
6. What do you work with?	Is occupied
7. Who is your favorite actress in French Film Noir?	Interest/knowledge of French Film Noir actresses
8. Are you a programmer?	-
9. Do you like sports?	-

While we didn't get to reach far enough around different language philosophers to sufficiently compare their different models and select the most appropriate for understanding the difference of different statements, we did come across a model

presented in Korzybski (1933, Book II, chp. XXV) by which we can so try. In his work he presents a model called the “Structural Differential” that synthesise his theory of the organisation of language connected to events occurring outside and inside the body. Here, events in the real world are characterised by an infinity of characteristics. By the use of our finite bodily senses we sense specific characteristics of the original event that is ‘translated’, so to say, into a non-verbal object in our organism. In verbalising the object we form the first *description* of it which further reduces the characteristics of the object and the original event. This representation is similar to McLuhan’s notion that the content of any media is another media, and that the content of speech is non-verbalised bodily experiences (McLuhan, 1994, p. 8). The way in which we jump from event to object and from object to description is by *abstracting*, and each subsequent verbalisation of the description constitute a further act of abstracting that can continue in infinity. Coming back to our list of questions, we see a difference between *is-ing* questions(3, 4, 7, 8), *has-ing* questions(1) and *do-ing* questions(2, 5, 6, 9 - 5 is included because it is the same as the question: How *does* your grandmothers question look like?). *is-ing* questions produce short answers because all they are doing is mapping words to other words by the identifying *is*. Not unless they are accompanied with a *Why* will they allow for a story to be told. *has-ing* and *do-ing* questions produce longer answers because they are, in a sense, centered closer around an actual object/event - they are *descriptions* of them. Because the stories produces descriptions of actual objects/events, they provide a better foundation for others to re-live the experiences through the words of the other.

Further cues for further instances

On further instances of dinner breakpoints, Kitchy should proceed more cautiously, be random at which breakpoints to cue on and at each cue, Kitchy should first ask the participants “Hey, can I say something?” - if they answer Yes, then Kitchy can cue a new speech act or question. If there is yet further breakpoints during the dinner, Kitchy might propose just performing its own storytelling, from a selection of pre-selected, *dinnersafe* stories.

Phase 4. Point 1) There are many ways to obtain reviews

From the example of the SMS review sent to Ananta, we should ensure that when such a message is sent on SMS, then it should also contain a link to an online Form. Then people will have access to chose between both at once, the cost of the online form being free and more convenient for some people. Review questions on SMS should also be sent pairwise instead of atomic. Instead asking if they liked the dinner or not in one SMS and then asking Why in the next SMS, these two

questions should appear as a pair so users can reply an SMS with both answers.

Phase 4. Point 2) People like to eat with others

The analysis of reviews pointed to several cases of discrepancies between user's evaluation of a dinner. Discrepancies based on different judgement passed on aspects surrounding a dinner - while some liked the SMS communication, others disliked it; while some thought the place was messy, others thought the place was charming etc. While these expressions of discrepancy were not publicly shared, they are privately held expressions pointing to areas of potential disagreeableness between participants. To create more agreeableness between participants we think it would be beneficial to prime participants towards suspending judgement. Suspended judgement is the ability to observe without passing judgement of good/bad, true/false, ugly/beautiful etc. In the context of being presented with a yes/no question, then realizing that it is also possible and valid to not answer. Or in the context of a dinner, witnessing that a pile of dirty dishes are filling up the sink, then being able to abstract yourself away from judging it as bad thing. Where Facebook provides a *Like* button without a dislike, we still think it crucial in this service to be able to catch negative reviews. A way that such priming could take form then, is by continuously reminding people in text, that even though an option is presented, the option of no-choosing is also always possible. From our data processing we feel there is mechanism going on with respect to behavior and judgement - events are approached or avoided as a relation to how the individual judges them as good or bad. Not in a categorical sense, but as a 2x2 of continuous gradations of these aspects. Suspended judgement then provides a neutral grounding for reflection of one's behavioral response instead of deferring to habitual response.

4.3 The Meaning of the Findings

What we have here described is a list of the main findings, somewhat removed from the context in which they were originally discovered. Presented as true statements without further grounding they appear to stand weak, but important to note in this regard, is Korzybski's saying that "The map is not the territory" (Korzybski, 1933, pp. 747-61), that the statements we have made (especially given the statements use of non-specialised everyday language) are not the same as reality. But rather, as an extension to this, the statements are to be understood as arrows on a compass¹, indicating directions one can pursue. In so doing, we proceed to propose the design

¹See <http://blog.media.mit.edu/2012/07/compasses-over-maps.html> and <http://www.youtube.com/watch?v=VsjTVGIw4z8>

of an information appliance that can incorporate some of these directions in its modes of interaction.

Chapter 5

Design Solution: Kitchy the Dinner Robot

5.1 What is Kitchy?

Kitchy is the service and system that provides interconnecting and situated experiences around commensality. It does so by taking the form of an information appliance - a customised physical product that can be integrated in the commensal space, and which is connected to an online user database and interaction model. It is *interconnecting* in the sense that it is a platform that allows people to register themselves and find commensal dinner events to join. It is *situated* because a physical device placed on the dinner table or within the space of commensality, is designed so that based on audible activity within this space, the device attempts to use speech acts to modify the social scene during the shared experience.

As figure 3-22 showed, Kitchy can be embodied in various forms - a trivet, a can, or as a tablet/smartphone embodied service.

In the experience prototyping process we focused our efforts on the SMS and Voice media aspects of the service, but here we will consider how other media also plays in to create a total set of touchpoints for the service experience.

5.2 Service Blueprint

In accord with Moggridge and Atkinson (2007, p.426) (See also Spraragen & Chan, 2008) “a service blueprint describes a service in enough detail to implement and maintain it.” It should describe the *flow of use*, the *technical infrastructure* and the *brand management*. A service blueprint lists the touchpoints the user comes into contact with and presents a line of visibility that separates *onstage actors* (consisting of the user and everything the user interacts with) from *backstage*

actors(all aspects of the service that are not visible to the user).

For the purpose of keeping a user-centered view of the service, we have focused on presenting the Onstage activities in figure 5-1. The flow of use follows a Z-shape, starting from the top-left and going down, bouncing back and forth between the user and website, email, SMS, and voice of the service using NFC tags as a user-logon mechanism (SMS and voice abilities being embedded into a physical device, the talking box).

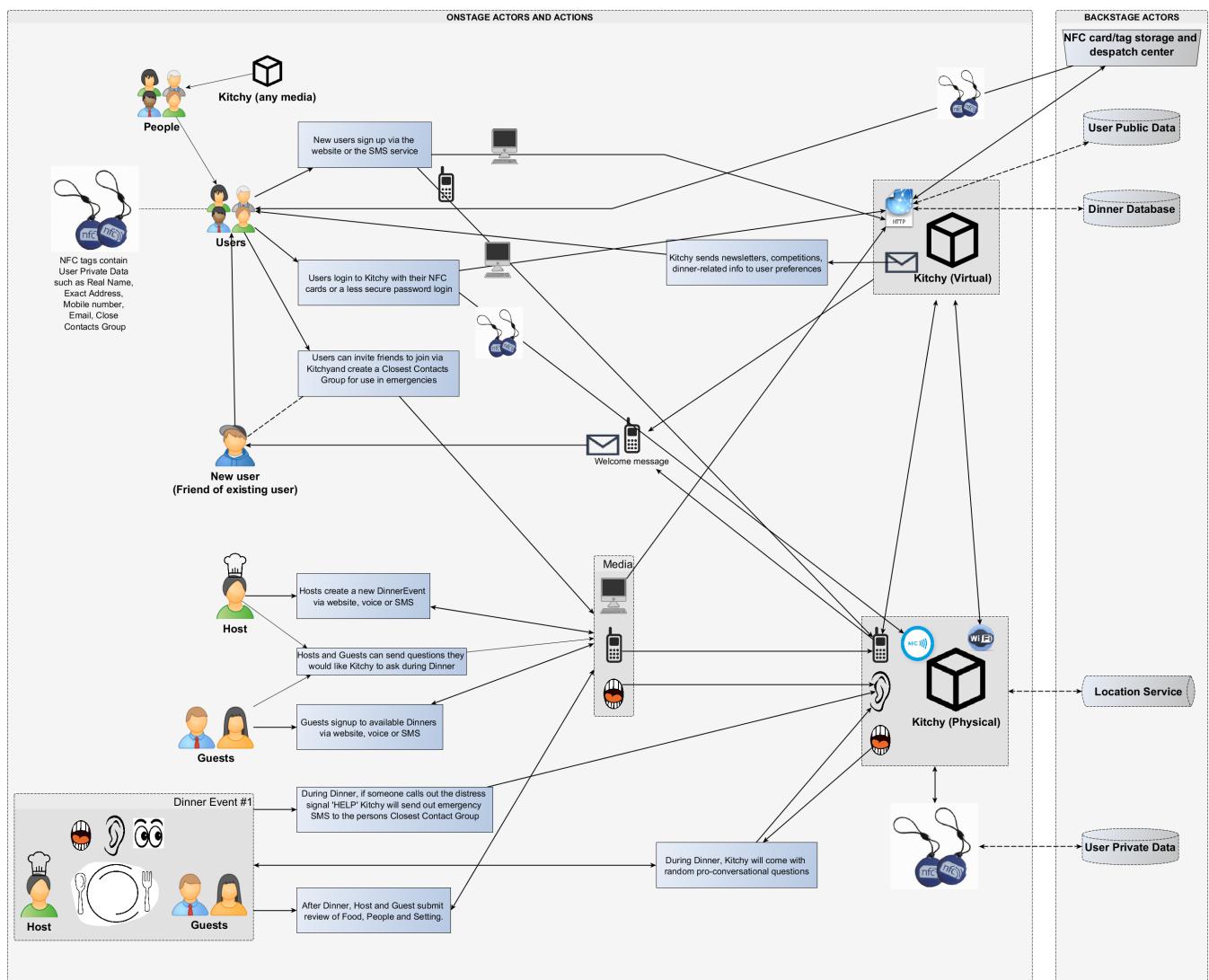


Figure 5-1: Service Blueprint of the Host-Guest network.

First touchpoint

As we know from McLuhan, any extension of human is a media(McLuhan, 1994). The first touchpoint is the *event* that turns everyday people into *users* of the service. That touchpoint can be any media, it can be another person(Word of Mouth), it can be a poster or the website or seeing the Kitchy device at an actual dinner or another context.

Website

As indicated by the findings obtained via our prototyping, people value different things, and using the game structural element of “purpose”(Avedon, 1971) is a useful construct to “frame”(Bateson, 1972; Kolko, 2010a, chp. 2) the users entry into the service. For that reason we propose a multi-purpose website design. When a user first arrives, he/she should be given a choice of which purpose they are seeking. We propose 6 types of purpose-embodying characters: 1) The foodie - values good food experiences; 2) The socialiser - values meeting new people; 3) The environmentalist - values saving the environment; 4) The economist - values economising, a dollar saved is a dollar earned; 5) The adventurist - values trying something new, anything; 6) The hobbyist - values building community around common hobbies. The user’s choice of character should result in customised information representations and interaction use flow.

Emails

Emails are sent out appropriate to the chosen character as monologic newsletters and competitions.

SMS

SMS are sent out appropriate to the chosen character as cool, participatory messages regarding actual dinner events. SMS is also used for review collection and offers a way of emergency coordination.

Voice

Voice is utilised during actual dinner events as a response(Goffman, 1981) to patterns of prolonged silence or patterns of very rapid turntaking (taken to signify escalating discussions). It is also used to frame the dinner situation by recasting who are guests and who is the host. When Kitchy makes some utterance it will be sensitive to the word *What* for 3seconds to give users the chance of having the

utterance repeated. Research shows that the word *What* is the most pervasive word used by humans when they don't understand something (Stoyanchev, Liu, & Hirschberg, 2014). It furthermore understands the words *Yes* and *No*.

NFC

Is the medium that stores all person-sensitive information like exact address, telephone number, real name, list of emergency contact phone numbers. It also acts as the login mechanism to the service through the NFC sensitive Kitchy box or NFC sensitive smartphones.

Backstage

Any line that is dashed, signify a backstage action that is invisible to the user. In order for the service to function, the Kitchy physical device needs to have contact with the virtual representation, the website on the internet. The physical device incorporates location sensing, and the website contains databases of current dinners and users public profiles. Furthermore, there needs to be a way to send NFC cards/tags to users as they sign up to the service.

5.3 Considerations on the design of the Service

Chapter 5 presents the service design by means of a service blueprint showing the touchpoints and a simplification of the use flow. A journey map of the scenario of creating and attending commensality is shown in appendix B.2.

In terms of the role of communication it was discovered at a rather early stage that email generally was not a good way to get people to sign up to the service or to actual dinner events. But besides the medium somehow carrying a scent of non-participatoryness, it was also argued that the representation of "the message" also participates in conveying the same meaning to users, typically signified by the sheer count of characters used in constructing the message. While a "journalistic" presentation of information according to the 5-W's and a "How" can be OK for spoken communication, in terms of participation it was not found to increase engagement and is considered detrimental when employed on SMS. We think that Bildgaard (2008)'s argument on the importance of "trust" in modern and post-modern societies, also can help shed some light on the approach/avoidance mechanisms playing out here. Fact is that our relationship to email-subjects is that of a "project-based-and-centered-acquaintanceship". In the everyday world of people in the modern/post-modern society they are being met with myriads of such project-based-acquaintances - from various representatives of NGO's, institutions

or religious groups on the streets asking for their engagement, to people knocking doors. In the big sea of navigating everyday choices, we represent just another choice option without any real measure of associable emotionally- or habitually-based trust (and reflexive trust is demanding of users). One of our interview subjects expressed the lack of trust clearly in “Det kan I jo sagtens komme og sige. (That’s easy for you to say.)” when we explained the reason why we wanted to enter the building, and then argued that her letting us in was due to *we looked pretty decent* - habitual trust. Getting back to our email and SMS communication, we see that these forms of media and the many ways they are being used in the everyday, make them inherently low in habitual trust (i.e. anyone can send an email or SMS from any account), and void of emotional trust unless the receiver is already a friend of the sender. Reflexive trust requires the user to critically examine the source and the value proposition, and if there are no “signs” of trust in any of these, the overall trust is apt to be virtually non-existing from the start.

We have only in this project, prototyped the SMS, Email and Voice aspects of the service. The website and NFC aspects have not been prototyped. By doing so, we have essentially shown evidence that a significant amount of people are willing to eat with others without knowing *anything* about them prior to. Following the stages of a product life cycle (Norman, 1998, p. 41) we can group these as the enthusiastic first users who just like the idea and want to participate despite quirks of the product. For the later user-groups however, we do foresee a need for people to be able to lookup information about others prior to an event - transforming users anonymous users into eponymous (Sutko & e Silva, 2011). However, with each piece of information revealed, it provides a center for *differenting* to occur - “he is a *student* and therefore must be so and so” or “she is a *single-mom* and therefore must be so and so”. In a service like this we really want to diminish any grounds for discrimination or xenophobia to occur (research has already shown “digital discrimination” occurring on services like AirBnB (Edelman & Luca, 2014)). How much information to ask of participants will vary, and similarly it might be argued that the amount of information display should also vary - there is no “one size fits all” approach with regards to the level of information a user wants.

Preference-selection is an extension to the question of how much information to disclose, but preferences are more centered around dinner events than user profiles. As was argued above in the discussion of the finding from Phase 2, Point 3, preferences are dynamic and have different orders of *dynamicity*. *Eating* preferences changes on a daily basis while *diet* preferences are more long-term, and food-intolerances even more long-term. The review of existing solutions in related work point to information like “drinking or no drinking” and price of meal as also being relevant preference options.

The proposed design constitutes a context-aware system in the sense of sensory-

based actuation of events. There are three things that the system senses for: 1) Time; 2) Location; 3) Dinner event creation/preferences. If a dinner event has been created in the system for a specific location and for an announced starting time, the system sends out an invitation to users based on the current time, their location and their dinner preferences. If an event is created 23 at night for a dinner two weeks away, invitations can be sent out on email as a daily summary, but not on SMS until the actual day of the dinner. Schilit, Adams, and Want (1994) points out that all context-aware systems need to make a design choice with respect to four properties as outlined in figure 5-2.

	manual	automatic
information	proximate selection & contextual information	automatic contextual reconfiguration
command	contextual commands	context-triggered actions

Figure 5-2: Design choice options of context-aware systems (Schilit, Adams, & Want, 1994).

With respect to dinner invitations, we see that the notion we are embodying is that of “automatic contextual reconfiguration” and “context-triggered actions” - when the system senses that a dinner event has been created, it displays this information to the user automatically based on context. Sites like EatWith and similar, are embodying the manual version of this aspect of information retrieval because they require the user to specify and select their own location, time and dinner options until they get information about relevant dinners. Using this model we also see that it is possible to embody the notion of “contextual command” into the service - a user could send an SMS with the question “Dinner?” as a manual way of retrieving a list of available dinners. Benford et al. (2004) shows that if automatic location sensing is faulty, this can also be offloaded by deferring the action to manual user commands. In that sense the contextual command above could be of the form “Dinner in Copenhagen?”.

5.4 Evaluation of the Service

The evaluation of this service is based on Experience Prototyping of situated Dinner events and SMS-based interaction. These were only two aspects of the proposed design solution so a complete system evaluation is not possible. In this respect our evaluation methodology is closer to that of an *Implementation*-based evaluation, than a Proof-of-Concept or Simulation (Krumm, 2009, pp. 75-77).

The source for the evaluation of our design is to be found in Phase2-4 of chapter 4. People were for the most part positive about Kitchy as the talking

box interrupting dinner. While some thought it was a nice and fun “extra guest”, others were a bit more conservative saying it was “definitely very interesting.. intriguing”. There were also a few who thought it was very weird, not a concept adaptable to their script of the dinner frame. We didn’t however dig closer into this to explain their reasons.

The duration of turn-taking storytelling events cued by Kitchy ranged from 7 seconds as minimum and 12 minutes as maximum (median of 21.5 seconds and average of approximately 2 minutes). In no events did participants flat out refuse to answer questions from the talking box, an attempt was always made. In an attempt to understand the difference in *talkability* of the different cues, we refer to the discussion of findings above, Phase 3 Point 2. Here we argued that the strength of speech acts with regards to their effect on talkability is higher for questions that cue for descriptive answers (i.e. “salad has green leaves”) rather than questions that cue for identification answers (i.e. “salad is good”). Using this distinction and applying it to the cues that were used (excluding Yes/No questions) we see an average of 2 minutes and 30 seconds, and a median of 36 seconds in talkability. This supports the theory, but whether it holds in other scenarios remains to be explored.

The SMS interaction experience is a bit more difficult to evaluate as we don’t have as much feedback for this. Of the 72 SMS-participants, 2 used the command `##STOP` to unsubscribe from the SMS platform. This happened on the 19th and 23rd July respectively. 3 more participants used the same command to unsubscribe on 3rd of August. No feedback was given in connection with unsubscribing so inference is only based on abstracting. We think it is significant and indicative of a non-optimal design of the SMS interaction. Maybe the proposed use of characters and customised interactions can alleviate it, but we also think it important to employ a very cautious approach to SMS to respect the intimate feelings associated with that media.

Remembering Dinner 3. At the end of that dinner we surprised the guests by giving them a giftcard each. Now, the idea with this was to simulate a point-distribution mechanism of the system where participation to a dinner event automatically triggers a set amount of points for guests and hosts. Points that will be attributed to their user-accounts and which they can use in other aspects in a wider service network. At this point in time when we decided to use physical giftcards instead of virtual points to simulate this aspect, we had not yet read Marcel Mauss ”The Gift” (Mauss, 1954; Carole Counihan, 1999). Had we done so, we would realise the vast cultural/social meaning that a situated gift-exchange has over a mere transaction of points in a virtual domain, and in the automated service described here there is not supposed to be any ‘system-representative’ in the situated scene other than the Kitchy-box. In many cultures, gifting creates a

reciprocating bond between receiver and giver. In this it is of crucial distinction who is the source of the gift. The dinner already constitutes a gift to guests, so when we entered the situation with a gift for their participation in the test, we had, in the worst case obscured the reciprocal bond being forged between host and guest, or induced an obligation of reciprocation in the guests to two parties (the host *and* the system). It will be hard to measure which of these cases is the actuality. Reciprocation can take many shapes and we think it important that the practice of gifting only occurs on a User-User plane instead of a User-System plane, and that the system should encourage gifting when users are invited to a new place.

In the contest-email that was sent out to users (see appendix D.1) one of the questions was whether they would like to stay informed about the future of the project. A majority answered Yes to this question, further indicating an interest in the projects actual usevalue.

Chapter 6

Discussion

We started out with this project with a research objective that read as follows: “With a primarily user-centered approach, we seek to design and evaluate a service intended to facilitate commensal meals between unacquainted people.” The strong undercurrent guiding our focus in this undertaking was the question of “How does communication play in to this?”.

In this respect our project consisted of two big domains with Interaction design forming the relationship between the two: 1) The domain of navigating a passage to the meal; and 2) The domain of communication in so doing. Interaction design is the method whereby we dig out aspects of the two domains in a way that is computable and can be implemented in an information appliance (Norman, 1998) and offered as a service experience to users.

6.1 Navigating passages to Commensality

Beeman (2014) extends upon van Gennep’s description of *ritual* (Gennep, 1960), in describing the passage to the commensal meal. Like phonemes constitute the sound bites in language by which we understand their patterns as being meaningful utterances and words, Beeman (2014, p. 32) employs the concept of pragmeme and pragmemic triggers as units by which we make sense of linguistic and behavioral acts to guide our social and cultural life. The use of pragmemic triggers to trigger transitions between different “events” (Hymes, 2001) - settings or scenes of cognitive or cultural meaning. Figure 6-1 illustrates the events that participants go through in the ritual of commensality.

Beeman (2014, pp. 34-39) identifies a total of 8 events that participants transition between in the cyclic ritual of commensality. These events are: 1) The outside world - the “normal”, “ordinary”, and “unmarked” everyday world of individual subjects as referenced in Schuetz (1945); 2) The invited state - preparing

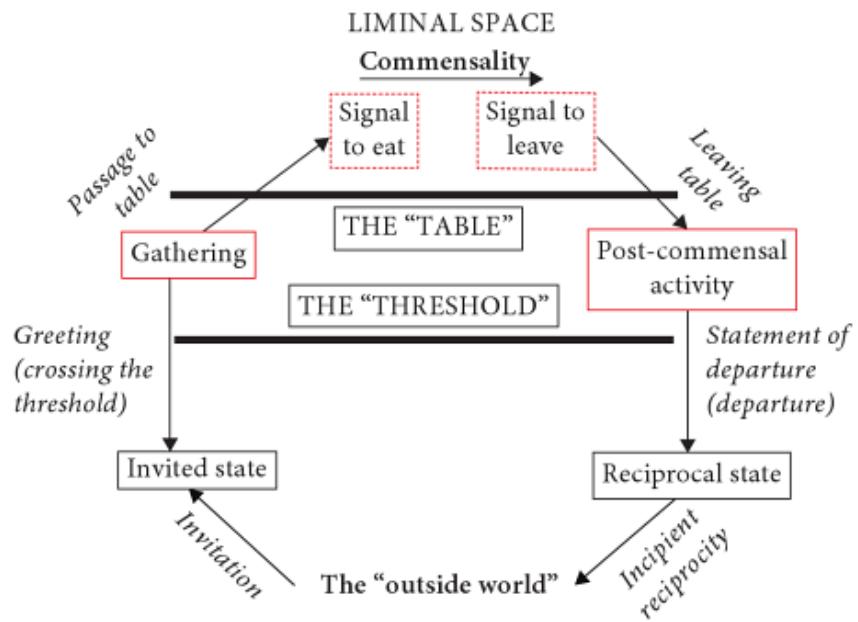


Figure 6-1: The commensality ritual (Beeman, 2014).

one self, scheduling and arranging transportation, coordinating who will look after kids/pets, anticipation; 3) The gathering place - greeting each other, changing attire, possibly exchanging gifts; 4) The arrival at the table - when participants take their seat at the dinner table; 5) Commensality - when participants start to eat; 6) The post commensal activity - when eating finishes and other activities follow; 7) The departing place - when putting on clothes to re-enter the external world and exchanging pleasantries with each other; and 8) The reciprocating status - “In most cultures a commensal event implies reciprocation at some level”.

As has been stated before, commensality transforms, and the person who step in the door are not the same as those who step out - new experiences have been gained and new relations formed. Literature also points at another way to understand the changed state that participants enter into after commensality - common ground. The act of commensality is grounding in that participants partake in the joint activity of eating through collaborative activities (Carlston, 2013, p. 730). What is critical in grounding experiences is not just that participants by communicating can share information, but also that they come to perceive *that they hold* information shared (Carlston, 2013, p. 730) - that when one actor presents information, the other shows sign of accepting it. We find this similar to the notion of “establishing communion” expressed in Hayakawa (1949, p80). He goes on to say that this search for “togetherness” in communication reveals a principle of how each piece of information that an agreement can be reached(greeting each

other, commenting on the nice weather, etc.), incrementally wears away “fear and suspicion of the stranger”. In this manner, common ground, becomes the ground of a collective identity:

Collective identities are conceptually closely related to, but different from, social identities (Tajfel & Turner, 1979; Turner 1987). A social identity is the individuals knowledge that he belongs to certain social groups together with some emotional and value significance to him of his group membership (Tajfel, 1972, p.292), whereas a collective identity in the present sense is the individuals knowledge that a collection of people, including himself or herself, engaged in the joint activity (Carlston, 2013, p. 732).

Such is the nature of commensality with reference to literature - a ritual(Beeman, 2014), a set of exchanges and agreements(Mauss, 1954, p. 14), an act of binding events in time(Korzybski, 1921, pp. 58-60), a dialogue(Holquist, 2002, p. 40), and a form of play(Huizinga, 1955, p. 1).

It is with this framework in mind that we will discuss some of the findings that were the result of our explorative research into commensality of unacquainted.

Two of our findings read “Eating together establishes acquaintances and common ground” and “Commensality are intimate experiences in which you talk about things you wouldnt talk with strangers about”. Both of these came from section 3.4. We observed that some of our test subjects have formed Facebook-friendships and also the comment by Mads from Dinner 2 who, when asked how it would be to run into the other guests again answered “Less awkward probably”, indicates relationships and common ground have been formed between participants and that they have transcended from being unacquainted to acquainted. Two support the finding that unacquainted people talk more openly within the frame of commensality than within the frame of ‘the everyday world’, we can see it both from our dinner experiments and from our interviews. Transcripts from the dinner experiments attest to the amount of information that is shared within commensality, even without the help of Kitchy. Transcripts from the interviews indicate that virtually no one will casually strike up a conversation with unacquainted people in the every day world (Kim (2012) shows the same to be true also for long-distance transit where people are co-situated). Dinner 4 took place in a public setting and this was the dinner with the least amount of talking. If this was due to situational (that the dinner took place in a park shared with other ‘picnic’ groups within audible reach) or cultural factors (Beeman (2014, p. 39) mentions that preferences for talking or silence during dinner is also cultural).

Of the 39 people which we asked whether they would like to participate in the project as a host, 11 answered yes, 20 said maybe, and only 8 said definitely no.

This shows that people are generally very open for the idea of inviting unacquainted people to come eat with them. The problem is one of planning, scheduling and organising.

From the interviews, many people asked for some “purpose” as to why they would want to eat with unacquainted others. We subsequently in the design solution (chapter 5) proposed to implement “purpose” as a set of characters that the users could select from on the website when they sign up that would then result in customised service experiences.

The article Bildtgaard (2008) presents us with an entirely new way to perceive peoples method of navigating in the everyday world as social beings. In here, Bildtgaard (2008) draws in a large body of sociology around modernity and post-modernity to argue that trust plays an increasingly significant role in modern and post-modern societies in helping peoples eating - “trust shields us from the dread of a contingent, unpredictable world and frees us to be spontaneous and uninhibited”. The social basis for trust, he argues, is emotion, habit and reflexivity. Habit being the most strongest factor of the three in that it most of our everyday practices are guided by it. With relation to unacquainted people and food in the modern world, he argues that trust here is formed by knowledge of how the unacquainted persons’ *social role* fits into a larger *organization* as a rationally regulated part of it - in this sense we form trust of the butcher even though we dont know him. Bildtgaard (2008) argument concerns food products and he ends by promoting certification as a way of enabling conditions for trust based more on reflexivity of the societal and individual risks connected with food choices. During our related work we have also observed forms of certification being used on sites like AirBnB and EatWith to indicate users that have been *authenticated* by the service. When people in our project thusly raised concerns to eating with unacquainted people, we can now understand that in terms of the concept of trust, and argue that it might likewise be beneficial to apply a certification scheme of participants although it does add a feeling of commoditising people.

6.2 Relation to Related Work

Going back to the related work presented in chapter 1 there are some further points of difference we wish to draw out. Foremost is the attention to communication and the permeating role it has in all aspects of the service experience. We don’t see that kind of holistic approach in the other projects. EatWith, AirBnB and FridgeMatch are examples of services employing communication in the role of interconnecting people, or coordinating them towards fulfilling a system-defined goal (eating with others, renting lodging, cooking together from leftovers). ServeDish Table and 4Photos employ communication for social and/or socializing purposes

within a situated or mediated, co-present Human-Human space (facilitating gestural exchanges of serving each other, or mementotalk around photos). The medium is the message, and the design of these projects constitute each their own unique communicative framing of their purpose to the user. The design that we have described attempts to be frame-agnostic and presents the user with 6 different frames to enter the service with, each of which will manifest in slightly customised customer journeys with respect to coordination/interconnection and to situated socialisation. The overarching purpose of our service is to facilitate commensality among unacquainted others. In that sense our service incorporates 3 levels of communication: framing, interconnecting, and situated.

None of the interconnecting services provided SMS as a coordination interface and none of the situated services utilised Voice as a method of sparking situated user engagement. This is what we have done differently and we have discussed ways that SMS should be approached with caution, and suggested types of speech acts that maximise storytelling and turn-taking behavior.

In our actual prototyping process we have not made the framing-choice explicit, so the effects of such is an area that still remains to be explored. The choice of media and the design of customised use flows also needs to be further researched as it has to fit with users' existing foodways - the service needs to speak the language of the users as closely as possible.

6.3 Other Perspectives

The Work

The type of research involved in this project, very much resembles the “Compasses over Maps” approach popularised by MIT Media Lab’s Joi Ito. We had not formed a detailed plan for our research but instead proceeded by systematised curiosity in exploring different facets of commensality and communication across different media. An ongoing interchange between theory and observation in relation to created design artifacts.

Similar to brainstorming, this is an approach that generates a lot of data and the ongoing challenge is in planning the course of what to pursue further and what to lay behind as the project moves forward.

Interview coding

During phase 2 of the project we started to use Google Docs and Forms a lot as a computational interface between us and the end users. The benefit of that, is that we could more easily structure our data and make comparisons. In hindsight and because we didn't have a permanent physical room to conduct our research

in, instead of coding and transcribing the interviews onto Post-It paper notes, we should have created a Google Form of all the questions and run through it for each of the interviews and each researcher.

Tourism

Garcia-Gonzalez (2014) talks about food being a very important part of tourism but many tourists miss out because there is a gap in connecting them with the local community. She explores how ICT can help in that case. We argue that our service can help in that case as it provides both an interconnecting and situated experience.

Kitchy as a Coach

In this project we have explored the role of a service in playing a facilitator (by providing an interface people can come together around) and curator (by employing a 3-tier selection strategy in inviting people for dinner events, and by using speech acts during the dinner) for the purpose of commensality. Another potential role that could be explored is the role of the service as a coach in both a text-based and voice-based interface. Research has been done in using “conversational agents” to play Rogerian psychotherapists(Weizenbaum, 1966) or Confucius(Wang, Khoo, Siriwardana, Iroshan, & Nakatsu, 2012), and these examples could be used as points of inspiration for such a role in Kitchy.

Designing for Disaster

Aside from the risk of people free-riding, if we should think of the absolutely worst thing that could happen to a dinner, however unlikely, it would be to die. Heatherton (2000) supports that the existential threat is the strongest felt threat to the self. In existing services like AirBnB examples of people trashing apartments shows evidence of the inherent risk of interconnecting systems¹. In our service we propose, in the event that a dinner escalates into violence, that Kitchy the talking box is also sensitive to the distress call *Help!*, and if that is uttered during a dinner, will trigger Kitchy send out emergency SMS to a preconfigured set of *close contacts* of the host. The hope being that this will constitute a sufficient security network.

Expansion to other language families

While the indo-european family of languages is still the most pervasive in the world (Lewis, Gary, & Charles, 2014; Ruhlen, 1991). To offer support for more users it

¹See <http://www.marketplace.org/topics/tech/tech-report-blog/airbnb-users-has-apartment-trashed> and <http://allthingsd.com/20130716/after-home-trashing-incident-airbnb-builds-an-in-house-enforcer-team/>

would be good to include other language families as well. The most widespread single language is Spanish and then English and then Hindi, all these are from the indo-european language family. The greatest macro language is Chinese which contains several distinct languages - Mandarin being the most popular. In incorporating new languages and language families, further customisations of the service should be taken into account as research points to several cultural differences of language and food(Szatrowski, 2014).

Conviviality

By the proposed aspects of the service, we think that we are in accord with the notion of conviviality as, “the capacity to promote autonomy can be considered in itself a fundamental characteristic of convivial tools”(J. Choi, Foth, & Hearn, 2014, p. 26; See also Illich, 1974).

Chapter 7

Conclusion

The research objective of this project was to use a primarily user-centered approach in designing and evaluating a service intended to facilitate commensality between unacquainted others. And in this frame, focus on what the role of communication was and how it can be embodied in an information appliance.

This representation draws out the lines of a project which is primarily explorative and experimental, and situates itself within a Design and Ethnographic research of commensality.

In the project we have relied primarily on qualitative research methods and getting data via: 1) interviews in the field, 2) experience prototyping of different media for communication, and 3) Wizard of Oz for the commensal dinner events conducted both in a 'lab' setting and in the field.

We find that communication is central for the performance of commensality in three main aspects. Communication serves both as a coordinating role in navigating individuals to commensality, as a framing role in managing participants expectations and defining the scene of commensality, and as a socialising role in building common ground between co-situated participants in the shared activity.

The proposed design seeks to incorporate these three aspects into a situated information appliance connected with a webservice. By enabling users to select one of six characters (*foodie, socialiser, environmentalist, economist, adventurist, hobbyist*) we suggest a way to frame the service experience in relation to a game structure. The framing should manifest itself in character-specific communication. The role of communication to socialise constitutes a human-human form of behavior, but the appliance proposes to support this behavior by triggering speech acts within the co-situated space.

The project primarily explored the use of SMS communication for coordination and verbalised questions within the co-situated commensality space. Framing was not explored but it is hypothesised that the actual dinner participants most closely matches the character of the *adventurist* who values trying new things. It is found

that SMS communication is sufficient for coordination, and that automatically verbalised questions during commensality *can* contribute to create more common ground among participants.

As mentioned in the Introduction, research also shows that commensality reduces energy consumption, enhances nutritional intake and strengthens social ties (and maybe most importantly in a human perspective, people *like* eating together, as our data indicates). Interaction design can be used to bridge the gap and inform how service experiences can be designed to address large-scale global challenges, in micro-scale everyday activities that conform to the ritual, dialogic, symbolic and playful nature of peoples interactions with each other and with their surroundings (Beeman, 2014; Holquist, 2002; Hayakawa, 1949; Huizinga, 1955; See also Mauss, 1954; Carole Counihan, 1999; Bateson, 1972). Like experimental psychology of the '40s was tasked with researching how to change foodways in times of need (Wansink, 2002), we think it apt for interaction design now to take this challenge in face of anthropogenic climate change and food security as these constitute big wicked problems of todays world. Solutions in this domain, as Kolko (2012) points, can not be true or false, only good or bad and depending greatly on the individual perspective of the designer. For this reason "Designers attempting to address a wicked problem must be fully responsible for their actions."

Limitations and Future Research

The findings and conclusions of our project are of limited generalisability due to the many-faceted explorative approach utilised. In valuing rapid iterations, we have in many cases only touched the surface of what could be a new study in itself (such as the topic of characterizing participants, priming for suspended judgement in reviews, the use of alternative media such as posters, word-of-mouth and in-person contact to act as touchpoints).

The proposed design highlights many aspects which were not covered during this project. Of possible future research could be: 1) The effect of selecting characters to frame the user experience of the service; 2) the effect of mixing users representing different characters in commensality; 3) the long-term effects of other-commensality in shaping or dismantling stereotypes; 4) experimenting with other types of media/modalities for interaction; 5) evidencing how the service influence energy footprint and nutrition.

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Appendix A

Phase 1

A.1 Interview Guide used in Field

A.2 Interview Summaries

TK1

[male - early 20s student - monthly rent: 3600kr]

Currently he is fond of mexican food, one of his friends from Mexico recently moved to Denmark and got married. While he thought that he 'knew' what mexican food was, now that he has tried eating at her place he realize he didnt have any idea really. All of the mexican food in restaurants and takeaway is americanised mexican food. When they eat together it can be at either ones place. Usually he eats at home in the dorm kitchen. Their dorm has a food plan where twice a week, someone is cooking for the neighbors at this kitchen. He doesnt usually eat out.

To him food is more of a practical thing, energy to keep him going. He does enjoy making food and eating together with others, but when it is for himself he would never spend a lot of time cooking. Even though he likes good food, time and money are really the major barriers for him. He prefers to use his money and time doing a lot of other things, so food is not so much of pleasure unless if it can be combined with a social experience. When he cooks he sometimes makes leftovers so he has for a few days, right now he has lasagna.

The thing about eating together (and also just hanging out), is the thing about 'being' together. He hasnt tried being at a dinner where he didnt know anyone at all, nor does he spend time at the moment looking for public dinners to join. In the dorm they had tried a 'RunningDinner' kind of eating event in which three kitchens were responsible for each their meal of a three course dinner and then they went around to each kitchen during the evening. That was actually a very nice experiences he says. Three females were the main event planners, and in each kitchen there would be a contact person to coordinate what food to make and that the people where informed (facebook, posters and in-person) about the event. He knew one of the girls planning it and she was nice so that was an extra motivation to join. Conversations typically started out with what kitchen people came from.

If he were to go a to a dinner event alone it would be because there was some good reputation about the event or the host or something, and from having a sense that the type of event offered

would attract a certain type of people that he could relate to - he doesn't like the age difference to be too wide nor would he like all the people to be exactly like him. While new food experiences would definitely be something that could motivate him in the future, right now as a student he doesn't think so.

If he were hosting he would definitely like people to help cook as that just makes it more sociable and fun, they can help cleanup as well if they want to. He can't see himself hosting for lunches, because that phenomena happens so irregularly in his everyday world, but he could see himself hosting for breakfast.

He would have no trouble unacquainted people for meals either, in fact him and his girlfriend semi-frequently invited people from couchsurfing and had dinner with them as well. He points out that an important thing about these services for connectedness, is that they should promote a measure of a common atmosphere about the community, so that participants know that here are people who are likeminded and contributing - if it was just a service that allowed anyone on facebook to signup this sense of common atmosphere that couchsurfing has, would be lost he argues.

Last friday he witnessed an occasion of awkward silence. It was at his mexican friends wedding and they wanted to keep it small so they had just invited some friends over for dinner, but then when dinner was about to be over there was "this weird atmosphere going on because noone knew what was happening and if we were supposed to leave or something, and i dont know if they really knew themselves" - eventually a couple left because they had to get back to their child, and some guys went to a party while we remained four people enjoying a cosy evening together drinking and talking until 2 in the night.

TK2

[male - mid/late 20s student - monthly rent: 3600kr]

He eats very varied he says, "I'm not on any kind of dogmatic diet". He doesn't eat breakfast because of his workout. Lunch is meat and vegetables at school. Then he has a protein-shake in the afternoon, dinner at home in the kitchen and an evening snack and the second protein-shake before going to sleep. He cooks all his meals but also goes out once in a while, uses the school canteen or orders the occasional hang-over pizza.

He plans his meals on a day by day basis to avoid spending time figuring it out later.

He recognises food both as something that he really enjoys as well as a necessity - lunch especially is "just fuel for the day", while dinner "I think that it is something that, without putting a lot of effort into, have a good experience out of every single day".

When he cooks he cooks extra "because it's annoying to have to cook all the time, but also because I like to have a second meal".

When he eats he eats with the others he lives with. The most important aspect about eating together isn't really the food he thinks "food is just a medium that gets people together. You can't do that much when you are eating so you might as well socialise."

He remembers having been at dinners where he didn't know anyone and that it was good - starting school, starting new club etc. "The good thing about dinner is that you are often seated with the same person for a long time so you can get a real conversation about something."

He hasn't searched for public dinners "I don't need that when living at a dorm". He doesn't like to help cooking when he is a guest, "I don't see myself as a cook when I am a guest", but he can bring a bottle of wine. Also when he is a host, he prefers to do everything himself. If a host asked him to help clean he would of course do it, "but I don't think a party should turn into a lot of people doing dishes".

For him going out to eat (whether at a restaurant or at other people) is the experience of finding a meal that he couldn't make himself, but also just the 'getting out' part "because I live in a dorm there is the aspect of just [...] sit with strangers around you instead of a lot of people that you know".

He also hosts dinners sometimes for his friends. Conversations can be about anything, and he doesn't mind friends of friends "I always cook extra if someone says they are gonna come anyway, else I have leftovers."

A stranger to him is "someone I haven't met yet" and if he didn't know anything more about them he would try to approach them in a positive way, taking them as comfortable persons by default.

He might be more likely to invite for lunch than dinners. "They are more casual and usually shorter, you are not planning on sitting there the whole night". For that he would use facebook messages, "that also keeps it informal compared to calling or sending invitations".

He wouldn't like to experience bad food or strong fighting, "but then again that could actually be fun if there was a bit of a debate".

He hasn't really had problems of awkward silence, both he and his friends talk a lot he says.
Choosing between host or guest in our service, he chooses guest.

TK3

[female - mid 20s student - monthly rent: 3600kr / food: 2500kr]

She likes healthy food that tastes good and has a lot of different ingredients or represent different styles. After a few seconds more of thinking she said "I like pies".

"If I had more money I would buy more takeaway [...] I don't like making food, I like eating food", so when she cooks at home she cooks extra so that she can freeze it down and eat it over a week. She spends around 1000kr a month just on buying food from the cafeteria at her school. Sometimes her lunch is her warm meal of the day and then in the evening at dinner time she will instead just eat ryebread. "I love the idea from US colleges where you pay a monthly amount and then someone cooks for you every evening."

Sometimes, if there are other people in her dorm kitchen, she eats with them. They have a rotating dinner agreement once a week where they take turns cooking for each other - a paper in the kitchen highlights an opt-out service where people write if they can't make it (people had trouble remembering to opt-out so they tried with a Facebook as well, but people also forgot to sign out here). "It can be quite stressful to cook dinner for so many people [...] last night it was our exchange student and we usually eat around 19.00 but she had just finished buying the food at 19 so we had to help her otherwise it would be 22 until we had anything to eat. Suddenly two or three hours has passed and you have been out in the kitchen for so long and then you get tired."

Usually she eats alone in her room "when I eat alone I like to watch something on the television" so she makes sure to prepare the TV or the food so she can enjoy both at the same time.

"Sometimes I wish I didn't have to eat, especially in the exams period I am very stressed and that's a thing I need to think about besides reading and preparing myself for the exam. That's like, another issue in my life [...] I always have to go on compromise between what I feel like eating and what is economical possible" she comments, but then also mentions that food is "cosy and a social thing. It's a way of relaxing to eat something you like."

To her, eating together is more fun (than just 'being together'). "You have a better time together when you eat together, because then you do something. It's a way of socialising. It's more cosy to sit at a cafe while eating instead of sitting and not doing anything."

When she moved in to this dormitory 2 years ago, there was an introduction dinner for new residents. This was arranged by the existing residents but the invitation was sent out by email by the dorm administration. The residents organising it, would come knock at her door the day before as a reminder and to introduce themselves to her. "It was a good idea that they made us make the food cause then it wasnt that awkward because we had to help each other and do something at the same time." Conversations where typically small talk about the dormitory and where people came from, not so much what they were studying. Conversations started while they were standing there side by side cooking, but there was also arranged "games where they had to tell what they thought of each other".

She doesnt search for public dinners, sometimes she eats at other kitchens at the dormitory. She doesnt feel she is that social and at the dormitory there is already a lot of people to cope with. She has been to a folkekøkken once when a friend in her study group asked if they should go. If there was website that could let her eat with other in their homes, she doesnt think she would do that either by reason of not being that social. If she was invited by someone at random, likewise she wouldnt go. "If it made me feel special then maybe I would. Like when you ask me for the interview I already know it's because I live here." In that sense there has to be somekind of plausible explanation by which she can make sense of Why she was invited - a reason. If a family in the neighborhood invited her for pies (her favorite) she also wouldnt go, she feels its too stressful to interact with others and to be social, "especially when it's people you dont know" - there is a cafe at her dorm where they have 'Cake and Games' nights, and even though she likes cake "you cant just go down and buy cake and go upstairs again, that's rude".

"Socialising without going out is weird, because that's how you usually do it with alcohol and stuff like that." She also comments that you could "hang out [with friends] and have food at the same time" which would be more OK, and that there is a discount service in Copenhagen that sometimes offer cheap meals for two people.

If it was part of some experiment she would be more willing to give it a try, but to her it is still weird to socialize on a monday without alcohol or going out.

At a dinner she wouldnt like to experiense rude persons, but she cant imagine that happening. It has happened to her though, that people get into an argument - it happens both in the dorm kitchen and at family dinners, she doesnt like to experience that either. She wouldnt mind helping or not helping with cooking, cleaning or getting groceries when attending as a guest. She would like people to help cook, if she was hosting "if it goes wrong then it's not only my fault." but not sure about cleaning up because people dont always know where to put stuff.

She tried hosting for a birthday once. It was her first time cooking for 13 people and she had to start 5 hours before, "but then you get used to it quite fast." She doesnt invite for lunch or breakfast, but some of her friends do - she thinks its because they just like cooking in general.

When hosting she always says it's OK for a friend to bring a friend, but she wouldnt just invite people over she didnt know.

She likes having jobs where she can speak with someone she doesnt know. "Sometimes it can be too much when you live with people who study and you go to school every day. I like talking with people who have a totally different view." She was working at a bakery earlier, where she would get to talk with carpenters "I wouldn't mind having dinner with [them]. In a way I would prefer it, to get to know other kinds of people" and especially if she could go together with a friend.

The service reminds her of the show Festen og Gsten which started on P3 as a radio program and then became a facebook page where people could sign up and find others to eat with. She thinks she would try a service if it was very easy and people where certified in some way so you dont just get some weird persons.

She has a casual relationship with the neighbors on her kitchen "if you need an onion, you

can take an onion" from the one you are sharing refrigerator with. Sometimes she eats with them, or she goes eating with someone from the other kitchens.

She ends by mentioning that maybe the service could be used to integrate with the apartments next door - their only communication now is complaints when the dorm has a party and the music is too loud, the architecture of the dorm accentuates the music and when the main door towards the apartments is opened, the impact can be heard.

TK4

[female - mid 20s student - monthly rent: 3600kr]

In her dorm she is part of a cooking club where they eat together 4 times a week, rotating every third week. Food is happiness to her, she feels content when she eats. Breakfast is what gets her going in the morning, lunch is a necessity because she feels hungry and she prepares it from home but she would rather do without it if she could. She likes eating with others, sharing food is an old basic human experience and she thinks that you should take your time to eat especially when others have made it for you and people shouldnt be checking their cellphones or watching TV at the same time.

She usually gets invited by phone call or SMS but increasinaly also via Facebook - Facebook invitations are a bit more formal for birthdays and there is a text description. She writes the invitations into the calendar on her phone to keep track of it.

When eating with neighbors they talk about everyday things, but when eating with friends whom she meets infrequently she prefers catching up as opposed to talking about everyday matters. She has tried being invited to birthdays where she only knew 1 person, but she has never experienced real conflicts in any social situations. She is herself a diplomatic person, not always the one to start the conversations. If everyone was acting like Nazis she would leave but as long as there is someone who stands up against people acting stupid all is fine.

She would definetely use such a service when she is not living at the dorm. It should be easy to access and easy to create a dinner right away - possably an app - definetly facebook integration because everyone is there. She also mentioned a preference for a rotation-groups where you just take turns in hosting. Both in guesting and hosting the most important thing for her is to be able to set the number of people to her preferences on that day. Some days she is in the mood for 5 other days 20. Most likely she would plan a week ahead, but she could see herself as being inspired to just host with 1 day notice. She doesnt need any other info as she regards people as automatically interested in food and socialising who are gonna attend. If you werent interested in meeting people you could just go to a restaurant she says.

She likes to help cooking when she is a guest, its a better way to integrate than just standing in the corner with a drink. But she would rather not have help when she is cooking because she likes to be in control and its just easier for her to do it herself than to guide others. Cleaning is a bit different - she would like to have help no question about it, but as a guest it would depend on the price of the meal - if it was cheap and the value was on the social experience then of course she would help

TK5

[female -mid 20s student - monthly rent: 3600kr]

She likes all kinds of foods except for kapers and leverpostej. Usually she eats at home, but about once a week I eat out at restaurant. She's a social person and if not eating with the other people at her dorm she invites friends or family to eat with - this can happen over SMS, voice call or Facebook.

She sees eating together as a way to socialise, talk with people about what's going on and just have a pleasant time together. To have help cooking is fun if there is not too many, but then the others can just watch. For sure she would like people help cleaning.

She really enjoys eating and cooking, but lunch and breakfast is usually something quick and easy because she is on the run.

She likes to spend time with friends, family or doing what she likes doing. For that reason she doesn't see herself as a guest at some stranger or using a service to eat with strangers. She does however, like the concept of public dinners, but haven't tried it yet. Time is the main thing restricting her.

When eating at the dorm kitchen sometimes awkward silences occur and she doesn't know what to do and then she feels even more awkward - but if she is hosting a dinner she always tries to avoid awkward silences by talking - she says something and then asks some question and then wait for the other to do the same to create a kind of ping-pong dynamics.

Even though she has been taught not to talk with strangers, her mother does this even more than she does.

If people are really rude to her, or someone she likes or improperly rude to some third person/group, and continues to be rude even when asked to stop, then she would probably leave.

A stranger is someone she doesn't know anything about and therefore holds a potential risk - a person where you can't even trust what they are saying.

KMV1

[male - mid/late 30s wife and 3 kids - monthly rent: 12.000kr]

He likes anything and everything, mostly they cook at home and take out once a month approximately. They always eat at home as a family together. The most important thing about eating together is "hearing about each other's day". With three kids it's not always so much deep conversations that take place as it is 'kid management' between the parents, "but as much as possible we interact and talk about how was school". The non-talk aspect of being together is also important, just sitting and being together is "like an anchor of the day that at least we meet and sit together, no matter how busy we all are".

Food to him is 3 things: "an interest, family gathering and enjoyment". Dinner, Lunch and Breakfast. Lunch though, is a social gathering with his colleagues at work.

He doesn't have leftovers, "I manage the food as precisely as possible. I like fresh food, if I have leftovers it's because I plan to have leftovers, like potatoes".

He couldn't immediately recall a dinner he attended where he didn't know anyone there. But he goes to the gym with one of his neighbors and at some point it just made sense and the neighbor "invited us up and the kids were playing together and we ate some food. That was cozy and relaxed, but also a bit stressful with four kids, and that's probably why it doesn't happen so much now. [...] Having a small child is definitely a barrier, you sit down and it's always the baby's needs that has to come first."

Talking about the media he and his friends use to communicate and invite, he mentions that "I don't really use Facebook for my close friends, and my close friends doesn't need to be on Facebook with me, I meet them anyway - Facebook I use mostly to keep tabs on relations which are not really close".

When dining with friends, the topics of conversations revolve around current affairs, kids, politics and anything really. "Conversations will normally start with a statement of what's on your mind and then when you state that, someone will normally reply. So conversations are an essence of what's on the mind of the guests at the dinner table". A way to get your opinions out and get someone to reflect on it.

He doesn't currently search for public dinners, there is simply no time for that.
[The interview ended prematurely when his wife called him in to check on one of their children.]

KMV2

[male - late 30s wife and son - monthly rent: 12.000kr]

He is very laidback or unexpecting, he likes all kinds of foods and cooks at home for his wife who is disabled and their son. The son likes meats but the wife most easily eats rice and soft foods. When they eat its at home - usually in a casual way while playing a board game so that the kids don't just get bored and leave. The most important thing about eating together is the social aspect, spending time together and hearing about what the members are doing and if there is anything bothering them.

To him, food is culture - it's things which, during your childhood you have stuck in your mouth and come to associate with food, and that varies from country to country.

He doesn't eat breakfast at home, sometimes at work. Lunch is also at work where he eats a lot.

He was once at a dinner event at a friend where he didn't know anyone else except his friend hosting - was invited long ahead via SMS which he wrote in a calendar. That was fine, it was easy to break the ice by having the friend in common, but people were too drunk and he wasn't really in the mood.

He doesn't search for public dinners to join, he thinks it would be weird. He would go on a blind date, but haven't tried it. Also the idea of meeting people through the internet is weird to him. He likes to deal with people he knows. Some of his friends live in a commune of families where there is a weekly rotating cooking-family - his friends don't really interact more with the others, but he recognises it as a convenient agreement.

If there was physical fighting at a dinner he would leave, but he seems indifferent to verbal fights or abusive behaviours people engage in - "that's up to them".

He has tried inviting some local people over for dinner, and he talks with neighbors, but there is a frequent moving in and out so it seems like he doesn't have very strong ties to neighbors. He is a smoker so frequently he talks with people who want a cigarette or others who just walks up to him.

When asked about what role he would like in our experiment, it made him think that it was a 'role play' service. He doesn't know if he wants to be guest or host right now.

KMV3

[male - waiting couple late 30s - monthly rent: 12.000kr]

He has a very broad taste, the favorite is Italian and he likes fish a lot. He and his wife cooks at home around 3 times a week, "we eat a lot of takeaway and restaurant because it's convenient", but they also have 1 day a week where they virtually don't eat anything. Right now they eat on a day to day plan, but he thinks that might change once they are parents soon. When they cook, they try to make for two days or at least so there is for lunch the next day at work.

Food for him is primarily "nutrition and pleasure [...] it's love, it's time, it's adventurous, it's very mind-developing". Dinner is for sure the course of the day that he most prefers to spend time on and likes to make interesting - breakfast is a "need, and always oatmeal and bread and juice."

When he eats he prefers to do it together with others - "to have the same or to share the experience [with food]".

Once he was at a dinner where he didnt know anyone, "it was interesting, because it was also a foreign place where I didnt know the food culture so much [...] it was much easier to talk with the other people [sitting next to him] because we where eating together". This was some time back, but he thinks that it was likely him who started the conversations and one of the topics was aid.

Two times he has overheard some people talking about public dinner services and then been inspired to search about it afterwards (a folkekøkken and something in a church), but he hasnt yet been to any public dinners - "I think it's [a question of] time and I'm maybe shy, and I dont think my wife would like or something. I dont know I havent talked with her about it". If he knew about the other people going he would feel more inclined to go "also when we become parents I think it would be more needed that at least one day [per week] we can go somewhere without fastfood and have some good food, like slow food."

The type of information he would like to have from the service would be the duration of the meal - it's important for him to know that there is time for him to sit and enjoy his meal, "it shouldnt have to be you have to finish within an hour or that kind". He would also like to know whether he is supposed to bring anything, and what type of food is served "like if you order from Aarstiderne, sometimes you get surprised by a new kind of vegetable and that's a good thing, but it shouldnt be too crazy".

He doubts though, that he himself would use it still. To him it sounds a bit like GoMore and though he supports these ideas, he doesnt think that he would be the one looking for it. If he could do it with a friend or if it was very well marketed he might be more inclined. Also, if there was some flat-rate (no strings attached) dinners at Islands Brygge kulturhus at 50 to 100kr, then he might give it a try.

"I haven't invited that many people over the years. I dont feel that convenient about it. It's always a success afterwards, but it's not something I get to do because of this and that or I'm too lasy or I don't have the money, that has been the case long before cause you cant just serve whatever crap, it has to be the right topping". When he invites it's always oral by call or in-person, when the feel is there. He has already tried inviting people over he didnt know (wifes study group) a couple of times, by coincidences or as an impulsive action - "you get to know them and you can share the food". When he is hosting he doesnt want guests to help cook or clean. Chipping in would be OK, but he wouldnt feel convenient about asking for money, "then I would feel I had to justify why I bought this and that. I would rather pay myself and then they can pay another day". The max he can host is 6 people.

He wouldnt like to experience episodes where people dont like the food, or food poisoning, or "maybe the cutlery is not clean, or some other inconvenient situations I wouldnt like to experience that [...] maybe that's also why I dont invite over so much, I am very focused about the food [...] if you chose the wrong menu then you have to be at the stove all the time cooking".

He has tried awkward silence some time - when someone says something horrific, or if people just dont know each other. Once he was at a Galla or Conference where they hadnt been given specific seats so he would take some food and then just sit down at the nearest table - "the silence occured when you were sitting with your food and you havent introduced yourself to all of the people, you just focused on the food and not confident to talk with the others with ties and butterflies [...] it might have been avoided by having us introduce ourselves before the food is put on the plate", else the silence is often broken by the one who is most confident to start talking.

"I would try it out at least once [...] also because I think our food culture is a bit screwed up in terms of what we eat and how it's produced [...] I think you could raise awareness by

getting people together in a different way and that's needed I think [...] we are getting further and further away from what it is that we are eating actually, and the data about agriculture is getting more and more complex and usage of the land is getting more and more intense [...] there is the whole thing of throwing out food, but there is also the thing that we are buying the cheapest and we don't know how it's produced and we don't want to know either. I think it could be good to use a service to raise awareness, but then it requires a host who really cares".

To him, for the service to be easy, "the most important thing is flexibility. That you can specify exactly how many people, how many kids, how many adults, how many singles". If the system just sent totally 'random' guests over then he and his wife wouldn't like it. "I can imagine a lot of people I wouldn't like to have dinner with, and a lot of people I would like to have dinner with but not being able to find them myself. For instance we are a mixed couple, she is argentinian so it would be nice to find others who are also mixed couples. But my wife has been working at the embassy and she wouldn't like to have dinner with anyone from there, where I wouldn't have a problem eating with my colleagues."

Our service reminded him of a site called Running Dinner - it is mostly a dating concept where you sign-up for a 3-course dinner at 3 different locations with 3 different people and then end the night by selecting which of the people you would like to go out with.

KMV4

[female - start 40s husband and son - monthly rent: 12.000kr]

Even though she doesn't really like cooking or perceives herself as a good cook, she is the one cooking for her husband and son every day. Because of the son the food is very simple meat with pasta, rice or potatoes. But they eat regularly at 17.30 all days of the week. The most important thing about the dinner setting is to create a very calm setting where she can talk with her son and really get to listen to how he is. Food is basically just gasoline for the car. She eats lunch with her colleague at work who is a bit more into food, and on her (Colleague) initiative they go to Netto to find grocers to experiment with. She sees artistic food as somewhat of a way of expression, and she doesn't like that.

Once she was at a friend's wedding in the States. Because she didn't know anyone else it was a bit awkward. She got that invitation by formal invitation and wrote it into her paper calendar. Conversations typically started by 'So how do you know bride/groom?' and 'How/what is Denmark?' by her or the other, but at some point she stops starting conversations because they just run out, and she stayed eating her food, also when it was dancing time. She is a bit averse to any formal kind of dinners, to her they are more awkward than just a casual dinner with friends.

She eats with her friends whenever some time has passed and it's time to catch up. Then she invites by SMS or email which is more informal. It might sound cynical but when inviting people she feels there is always an expectation of having to give back - sometimes you help with something else, or it is just your turn to invite in the rotation. Nothing is for free she says, and especially if a stranger was inviting her for a free dinner she would question the motives - if it was as part of a charity or some other occasion she could relate to it would be ok.

But she doesn't perceive dinners as an exchange of services, "that would be illegal" she says, referring to the black economy and tax-avoidance.

If it was friend-of-friend, or she has a little knowledge about someone, or if it was through some other setting like Festen og Gsten then she could see herself as attending, but not if she knew nothing about them.

Where she lives, many of the people have children at the same age who go to the same school and some even in the same class. They hold dinners they cook and eat together every Thursday

or other, but they dont attend.

She doesnt see herself using the service because she doesnt regard herself as a good cook. To her it is more important that the social experience than the food experience is successful for the dinner to be succesful in total.

KMV5

[female - family 2 or 3 kids mid 40s - monthly rent: 12.000kr]

She likes regular home cooked danish food and thai take-away, sometimes pizza. She and her family eats at home and the husband cooks dinner in the evening. Food is a necessity and something that the family can sit down and do together - the most important aspect about that is "to have a chance to sit and talk together". She eats together with the children in the morning so her husband can sleep a little later - there they talk about plans for the day. She eats lunch at work if she has time for it.

Once she was at a dinner where she didnt know anyone. It was an opening dinner arranged by a kayaking club that she knew she wanted to join - she had just moved to the town and had found the event on the website of the kayak club. "I didnt have any information about the other people [in advance] but I knew they were into kayaking so I knew it was for a specific purpose [...] to just meet up with a bunch of people that you dont know what the purpose [of the gathering] is, I think would be weird".

She has also tried being at a dinner where she was invited by a friend on the same day in connection with a night-out with the friend's friends. "they hadnt started to eat when I arrived so I would say hi to a couple of people there, but not anyone else cause I feel its too formal to go around saying 'Hi' to everyone else when you dont know them". Conversations started with standard small talk about name, occupation, children "and then later on you find something interesting to talk about".

At school they have an arrangement where every two months, parents will join the class and have breakfast together, but other than this they dont search for 'public dinners' to join. She thinks that a service designed to get people to eat more together would need a "place where you can go", some sort of public venue "where you pay a small fee - I know some dating sites have a rotating dinner service and I would definetely join that if I was single", but she mentions that something like that would also be valuable for elderly people who feel alone.

They have hosted people for dinner many times over the years. The max they have tried is 17 and that was terrible, so 10 is the max. Invitations are sent out over email or SMS, but "I wouldnt invite people I dont know into my home. If we were to meet it would be in a public place." Conversations depend on the people you are dining with, if its friends or family you catch up and if its colleagues you can talk about work-related stuff.

Inviting for lunch would be more of a spontaneous thing, sometimes she would invite herself for lunch if she is in the neighborhood of some friends.

When hosting she wouldnt like guests to help cooking and cleaning, likewise when she is a guest she can help set or clear the table but wouldnt expect more.

"I wouldnt like people to be using their mobile phone. I think that's terrible rude to be invited to someones home and then they are sitting there talking to a friend or sending SMS" and indoor smoking are two things she doesnt like when being at a dinner.

She hasnt really experienced any moments of awkward silences.

She has herself been the organiser of 'rotating playgroups' initiative for the children, the main challenges with that was organising times and getting contact information to parents to make it run - "organising and motivating people is difficult", but she feels that a rotating dinner

concept would be the easiest way to present this service. Children families eating with other children families would be her preference.

She has a mostly greetings-only relationship to her neighbors but she has also been a member of the local residential board where they once a year organise a working day together with a common dinner.

KMV6

[female - couple mid/late 30s - monthly rent: 12.000kr]

She likes mediterranean food, fish and other seafood. They cook and eat at home together, she prefers to eat with others. "Food is enjoyment and the ability to gather socially" she thinks. She is simple about breakfast, lunch is at work where she catches up with colleagues, but dinner is the meal you really put some effort into.

When she cooks, except if it's with fish, then she cooks so that there is leftovers for two or three days dinner.

She hasn't been to a dinner where she didn't know anyone - usually she is invited by someone she knows or she knows someone there. Sometimes she is invited for teambuilding by her boss, then she schedules it in her Outlook calendar to keep track of it. Their neighbors invited them over for dinner the other night, they planned it in the afternoon and then had the dinner later that day and "it's nice to not always have everything so penciled in". Then they talked about topics of mutual interest, both of them have dogs so that was one of the topics, but the good thing about meeting this way is "that you are able to talk and reflect [...] you have more time when you are sitting at the dinner table" as opposed to just meeting on the hallway.

She has heard of public dinners but never tried it yet. A service to let people eat with each other, reminded her of a Jamie Oliver show where he was in New York and there was a whole ecosystem of underground anti-restaurant supperclubs in the homes of private people, but she hasn't tried that herself. In order for that to work she thinks the setup and situation needs to be done correctly - she also comments that this kind of service would probably be easier in Spain because of the culture. To do it correctly she thinks it would have to be through some sort of referral program so it's not just random people off the street - when it's at someone's private home you want at least 2 or 3 degrees separation, not 6 or 7 degrees. If it's at a public kitchen then it can be more open.

She wouldn't go to a dinner alone if there was no information "I am very shy and I think most people who are introvert will have a hard time", if she came with a friend it would be more ok as "you can always talk and then bring other people into the conversation". She thinks that maybe the dinner aspect should be secondary to some primary unifying theme - like in the states there is something called Dogs and Drinks and she would like something like that here too. Or maybe some "Bring your kid day". She could see herself host something like that. The good thing about having something else as a primary reason to gather is that answers the 'Why'-question people will have and that in turn informs the host of Who the people joining will be in a way that standard demographics about people will not be able to. "I think the idea of having dinner as a background to something else would put people more at ease than having it as a foreground". [In Catching Fire if a stranger approaches someone else having dinner, he would have to sit and wait until the host decided to offer some food by their own will]. When meeting new people, appearance also matters, there was once where she was looking for the way to Studieskolen in the winter time, and had gotten a snowflake in her eyes - "when I approached this girl she would run away as if I had the plague".

When she is invited she helps cook and clean if they want so, but if she is host she prefers people to just bring some wine or maybe a dessert instead of helping. She wants them to be as

much at ease as possible.

If she invites for many people she usually uses Facebook, but she also likes to use Evite because here she can customise the invitation and make it more cute. The max is 8 people for dinner. The more information she can get about candidates, the more informed a decision she can have on whether to Ok them as a guest. She conceives that maybe the service could be a social network or a subset of Facebook, but also an email service possibly in connection with a website. [Craigslist started as an email service]

At a dinner she wouldnt like to experience rudeness or any other standard social taboos, stealing, fighting, breaking things, being inconsiderate and putting your feet up. She hasnt experienced awkward silences unfortunately "I break them instantaneously and I see people must think 'what is it with this girl she cant have silence'"

GK1

[male - student mid 20s - monthly rent: 3000kr(couple) / food: 1500-2000kr]

He likes italian food and danish food, he likes to cook it himself and eats at home together with his girlfriend in their dorm room. Usually around 18.00 or a little bit before.

Food is very important to him "it can make your day better if you get good food" and also see's it as social thing and a good way to meet new people. He thinks both the taste of the food and the social experience is equally important.

Breakfast is especially important to him, he usually focus on eating a lot of proteins like eggs and maybe some bacon. Lunch is also important but not as important as the dinner in the evening.

When he cooks he ususally makes food for two days, cooking every day is too time consuming. He and his girlfriend switch who's cooking and whos cleaning.

He was once at a wedding where he was seated at a table where he didnt know anyone. He's usually the one to break the silence in situations like that, you can break it by just talking about the food, or the wine or just some small talk. "You have to keep the conversation going so that it doesnt stop and you are sitting eating, thinking about what to say next [...] try to find out what interests the other." At this wedding he was invited by paper mail two months in advance and wrote it into his calendar on his phone. When he meets for dinner with his friends they usually plan it through SMS, not facebook, and usually its in connection with watching a movie together or going out subsequently. They always cook and cleanup together.

A month ago [March] he saw an ad in MetroXpress about a week of pop up restaurants and he wanted to go but there wasnt more tickets when he tried. If there was a service that let him find people to eat with, he thinks he would try it once or twice for fun, but after that he would need to find another source of motivation to continue going. He wouldnt mind going if someone he didnt know invited him, "if the food is great then I think I would go, yeah". When going he would like to know the other participants age, he would like to eat with people at the same age so you have something to talk about that isnt just small talk, but you can talk about hobbies or interests. He would also like to go to a dinner at a place that had a good atmosphere to it, to experience the setting.

He doesnt like when accidents happen at a dinner - if people drops their glass or spills on the table, nor if the food is not done right.

A year ago, as a housewarming because they had just moved in, they held a BBQ for the family where they prepared some side dish and then people could bring their own meat to the grill. He could also invite for breakfast or lunch, but not people he doesnt know "that would be too uncomfortable. I like to know people a little bit before I invite them", but then again, if he has seen them a couple of times then they arent really strangers he thinks. 12 is the maximum,

its hard to make food for more people and right now he doesnt feel like he has the right equipment and kitchen to create open dinners in a service like that. He would like if the service made it possible to create pretty invitations in this kind of Menu presentation form.

He has a good relationship with all the neighbors on his floor, and his best friend has become his next-door neighbor who he met when moving in.

GK2

[male - student mid 20s - monthly rent: 1800kr / food: 1500kr]

He likes mostly asian or danish food which he makes mostly at home. Maybe once a month he eats some french food at a restuarunt. He do make a plan of his meals and shops accordingly. Food is a great joy in his life and very important to him. At his dorm they have rotating dinner agreement where each week there one of the 12 students is responsible to cook for the others on the floor. "It's fun to cook with other people [...] it's boring when you have to do it all by yourself" he says and adds that the most important aspect of eating together is that "people talk and share things when they sit together eating, its just a good occasion to spend time with other people."

Breakfast is oatmeals every morning - lunch is something fast like ryebread. He often cook a bit too much for one meal, but then he usually eats again a little later - he rarely eats it the next day.

He has tried being at a dinner where he didnt know anyone. It was through his job and he was invited a week in advance and while he does keep an electronic calendar he didnt need to write this down to remember it. It went fine he thinks, meeting over dinner is a great way to meet because it's not as awkward when you are eating at the same time. Conversations started by a comment on the food and then revolved into getting to know the other person. Of course there is always some awkward silences when you dont know each other, but that get resolved when someone just starts talking.

He doesnt search for public dinners. If there was a service that let him find others to eat with, he says that his attendance would depend on the venue and what food was served - it shouldnt be too expensive and "it would be exciting if there was different types of food so you could try something different each time." Information about the other participants doesnt matter so much to him, but he says it would be good if he could bring a friend to share the experience with.

He wouldnt like to have any social games during dinner - those things are stupid he thinks. He wouldnt mind to help cleaning or cooking, and if he was hosting he would also like help cleaning, but maybe not cooking as "that might not be a good idea when you already have a plan." The max people he can invite is 8 currently. He regularly invites friends over, it's fun he thinks. Then they just joke around and have a good time. There is a reciprocal relationship - if friends invite him for dinner he feels he has to invite the next time. But he invites whenever he just feels like seeing them again. Invitations are sent via Facebook. He wouldnt invite for breakfast but could see himself invite for lunch in the weekends. Dinner is also a way of networking he thinks, and "it's good to have a big network if you need something some day [...] a stranger is really just a potential for a friend or acquaintance", but he also sees that eating dinner together is a way to save time and costs. For him to use the service the website would need to have been done right and all the details of the system should be correct - details like ensuring that people pay or give back in some way and dont just leave + some basic profile info and picture. He mentioned that our service reminded him of Madklubben - a restaurant chain with rotating chefs, driven by its members on a monthly fee.

GK3

[female - student early 20s - monthly rent: 1800kr]

She likes fruits - she is vegetarian and allergic to gluten. She doesn't eat out often because she doesn't see she has many options - she prefers to make food herself and bake her own bread. Food is important to her and both cooking and baking is something she really enjoys doing. She often has leftovers, "it's difficult to only make food for one" so she just eats the rest the next day. For lunch she prepares some dark bread in the morning and brings to school. She doesn't put so much importance to breakfast, but eats the same thing every day.

She eats at the dorm kitchen or at a friend's place or at her mom. She doesn't have a plan of when to eat, but it is usually the same time every day. Sometimes she eats with her sister who also lives at the dorm. The most important aspect of eating together is not about the food but about the social thing - it's an excuse to hang out.

She hasn't been to a dinner where she didn't know anyone, but she has tried being at a friend's house where she didn't know the rest - it was awkward in the beginning but it went fine. "When you don't know the people you don't know what to ask [...] I ask them something that I think I'm also myself able to relate to." Usually invitations are through Facebook group messages, "that's the easiest when you have to arrange time", but SMS can also be used if it's not too many people, she has an old phone. She doesn't write down the dates, then she just looks it up in the Facebook message.

She has been to Folkekøkken with some friends when she lived close to it, but never alone and she doesn't typically search for any public dinners because there are not so many things she can eat.

The idea that someone she doesn't know should invite her for dinner seems strange to her - "I don't know why they would invite me if they don't know me" - if she were in that concrete situation she doesn't know what she would answer.

To be comfortable with someone you don't know you need to have met them so you can feel it she thinks. But if attending a dinner at someone's she would like to know how many people are there and what kind of food is served.

She doesn't like being at a dinner where people don't respect her food choices and talks about how good meat is, that happens a lot she says.

She helps cooking and also sometimes just takes over if it's someone close to her and she feels at home there, she likes that. She also helps cleaning and would like her guests also to help cook and clean. "At some point we made an agreement that every third Wednesday we would eat together as something that didn't involve drinking because we do that a lot in the weekends and that ended up being the only times we spent together, so I suggested that we would eat sometimes". She can fit 8 people max at the kitchen table. She could invite for lunch, but breakfast is too early. Usually dinners are arranged a few days in advance, unless it's with her sister then it's just a spontaneous phone call on the same evening.

She has a casual relationship with the neighbors at her dorm - if she needs some milk in the morning she can just take some from a neighbor (they share refrigerator) and then buys a new one later.

She is a bit undecided if she would use the service or not, she says she would have to see the website first, but she thinks it could be fun if the service could send out pretty invitations (Evite).

GK4

[female - student mid 20s - monthly rent: 1800kr]

She likes vegetables, fish and healthy food, she only makes her own food, she doesn't eat out. She eats at her dorm room or in her school, not by a fixed plan, but it does follow a daily routine. Breakfast is important "I can't do without it" and she usually has banana, yoghurt, muesli and a coffee latte every morning. Lunch is also important "so you can get some energy and concentrate". She prepares lunch in the morning and brings it to school where she eats with other people. When she makes dinner she sometimes gets some friends over. The most important aspect of eating together is "to have a great time and eat something delicious, also that my friends like what I make for them". When they eat together they talk about school or guys or some other friends dilemma, or dreams or anything really. Food to her, is a way to show who she is, "you are what you eat" and you also need to eat to live so it's a big part of her life. She usually makes a big dinner portion so she has for a few days.

She hasn't been to a dinner where she didn't know anyone - if she didn't know the people she wouldn't know why to go. She has been to dinner at a friend over Facebook or SMS, where she didn't know the rest of the people. It was "a little bit awkward because you don't know so many people [...] but after you had sat down for a while and maybe drink some wine, it's easier to break the ice [...] most of the time it's other people who ask me questions and then we are just going".

She doesn't search for public dinners and wouldn't, alone, use a service that let her eat with other people, not if it wasn't in her interest in some way. There has to be a 'common theme', like a get-together for students or the neighborhood, and she would also need to know what food would be served and who the other people were.

The worst thing that could happen at a dinner she thinks is food poisoning, or if there will be some fight/drama between the participants.

When she is a guest at a friend's place, and she knows the friend can't cook, she always helps and sometimes even takes over. She also helps cleaning. If she is a host she doesn't want people help cooking, and they can help clean when I show them where to put things.

She invites when it feels 'long since last', through SMS or a Facebook message, if it's a special event then she makes a Facebook event. Sushi nights, housewarmings, birthdays, but also spontaneous sometimes, with one of her friends who lives close by. She could also see herself as hosting brunch in the weekends. The max number of guests is 10 and it's ok for people to bring a friend or partner, they just need to tell her in advance.

She wouldn't host dinners as an extra income.

She has a casual relationship with her neighbors, they talk and have fun together when they meet in the kitchen. If she runs out of milk she asks and usually it's fine. They try to have a common dinner once a month but it hasn't happened a couple of months because it wasn't possible to find a time where everyone could.

She could go as both guest and host in the service.

PLV1

[Female - late 20s couple - monthly rent: 3600kr(studio apartment) / food: 2000-2500kr]

She likes unhealthy foods like cakes, candy and cookies but also eats meat and vegetables. It's usually the boyfriend who cooks dinner, then she sometimes makes desserts. When they have leftovers they usually eat it the day after or later the same day.

Food is important for her, she enjoys eating, it brings her pleasure and she wouldn't stand just eating 1 type of food always - she needs variety.

Her breakfast at home is coffee with milk and then at work she can get some salad and a sandwich, the same for lunch together with a cake or muffin or some yoghurt.

Dinner is "kind of ritual" for her. When work is finished it's a way to relax, talk and to enjoy. They eat together at the table, and its important just to spend time together without computer or any other distractions. They usually talk about past, present, future.

She doesnt search for public dinners and wouldnt go if some unknown just invited her - the norm is that those things happen through friends of friends or through work she says. She tried that once through a friend of friend, being invited a week in advance and with a reminder the day before - she remembered without the reminder. "In the beginning it's kind of strange and you feel not very comfortable - but later it's nice people and you find out what to talk about [...] I'm not the one who begins to talk, I'm also kind of quiet but usually then you can say something about the food".

If there was a service that let her find people to eat with, she thinks she would try if she had the time - she is intrigued by trying other foods. She doesnt mind helping cooking, but not cleaning - "I guess nobody likes that". She also thinks that it is easier to make food yourself rather than having others help.

When they invite its usually through SMS or a call, the max is 5 and it is ok when a friend of a friend comes. Usually its in the weekends when they feel now is the time, and conversations are catch-up style. She wouldnt invite for breakfast, she prefers to sleep late.

To invite someone she didnt know she would need to know they were not criminals or something, but also, whether you like a person or not is not something you know until you meet them and talk with them - it's a feeling, and sometimes you find out fast but it can also take months before you feel you like them.

She has a greetings-only relationship with her neighbors, she wouldnt ask if she could borrow some milk, then she would just go to the shop.

PLV2

[Male late 20s - student - monthly rent: 4000kr / food:2000-2500kr]

He likes traditional Danish and African food, sometimes he cooks at home but he can also just grab something from the local Pizzaria, but in any case he usually eats at home and prefers to do it around 18 or a bit earlier so he can do some work later in the night - he cant do that if he is full after a big meal.

Sometimes he has friends over where they cook together - its not important that friends help out but he thinks it is more social and fun to do it together.

Food to him is a way of getting his energy up, but its also a comfort. If his mood is low he likes to cook some traditional Danish food that reminds him of his grandparents and that helps his mood go up.

Breakfast is also important, he thinks that without it he would feel irritable and annoyed. He prepares lunch from home, but he is not good at doing that all the time.

He likes to cook big dinners so he has for the day after, not only is it easier but he also thinks it is cheaper. Dinner is also a good way to 'congratulate' your self - "Now I've done a days work and am home and can relax and enjoy the evening".

Some time ago he was at a dinner at youth club where he used to come earlier in his life. This time he didnt know anyone, he had seen some before but not talked with them - here they talked about the different foods they could eat, and some didnt like meat and some did, like he.

He doesnt search for public dinners and havent been to those Folkekøkkener that exists, but would like to go sometime.

When asked if he would use a service that let him eat at others, he answered "it could be fantastic if you had this app and someone over at this campus could text that 'ok, you can come and eat at our campus kitchen'" - he recently moved in, so it would be a good way to get to

know the neighborhood. He isn't a firstmover though, so he would need to see someone using it and how many before he himself would try. In his opinion age, location and food-preferences would be some of the standard information to display - gender isn't really relevant in his view. He recognises that this kind of information doesn't really say anything about 'who' they are, so he suggests that in order to get to know a person culturally it would be good to be able to pull Facebook Likes of the person. He doesn't think he would feel comfortable if he suddenly came into a very right-wing home. It's good to know that when you are going to a dinner with someone, that you have something in common with them, and the service should show that. He also wouldn't like to experience if someone is eating in a very nasty manner - he is accustomed to eating both with and without forks/knives so it takes something extra to cross the line.

Sometimes a friend invites him over for dinner on the same day, then he gets an SMS around 12 or 13.00 and that's cool. He also invites by SMS, except if it's someone he doesn't really know, then he would send a Facebook message.

If he could bring a friend then he wouldn't mind going to an unacquainted person for dinner, but else he would "need to feel comfortable that it was an ok place and that I could be relaxed and not awkward". He has tried awkward silence once on meeting his ex's mother the first time, but then the girlfriend was good at getting the conversation onto something that we could all relate to.

He could see himself inviting people over for breakfast as a part of studying or work - max 6 people in all circumstances. He invites whenever he feels happy and wants some company.

PLV3

[female - 30years - monthly rent: 4000-5000kr (guess)]

Starting out a little perplexed about the first question 'Just what food I like?' she mentioned salmon, Indian food etc and that out at her work they get a varied meal. Her breakfast is a bun out at her workplace that she eats while starting up the computer - In the weekend it's just something quick she gets in before her workout. When she comes home from work she eats very little, maybe just some fruit or yoghurt. Food for her is cosiness and she likes cooking and eating is also cosy. She doesn't plan but eats when she's hungry. She does have leftovers, but she is not good at using it. At work she always eats with someone, at home it changes a lot. But she likes eating with others - mostly because it is cosy - that's the most important about it.

'A dinner where I didn't know anyone? No I haven't, that sounds like a boring dinner.' She has been to a get together where the food was secondary, but that was cosy she thinks. When asked about what they talked about she answered that it's of course different what you talk with a female friend vs a male friend - so no need to go into details. She hasn't experienced awkward silences, she says that she couldn't have that so she would probably have started talking if that happened.

When she invites (for a night out including dinner) it's usually an SMS to all the friends at once, not Facebook, and it's not something she writes down - she remembers it - some of her friends are also colleagues so they talk and remind each other.

They are a small circle of friends that takes turns in inviting each other each month - a rotating dinner concept.

She doesn't search for public dinners - she has enough people to eat with (and feels that naturally at this age people should have found the people they want to spend their time with), and a large family that she eats with in the weekend. And she wouldn't use such a service unless it was as part of some course or neighborhood arrangement - invited through someone she knows. She wouldn't feel comfortable if someone she didn't know invited her. Information is not enough

to know someone - you need to have been co-present with them to know them and know if you could stand spending time with them for dinner.

Both when she is a guest and a host, she was raised that it is the host who is responsible for the food, then guests can take the dishes or prepare the table but nothing else.

Birthdays she has with her family. She wouldnt like a dinner where people are rude to each other or get too drunk and cant control themselves and she has to be a babysitter.

She doesnt speak with strangers. She says Hi to neighbors and can ask to borrow things, but havent eaten with them.

She doesnt want to participate in the project.

PLV4

[female - 50s - monthly rent: 4000kr (guess)]

She likes all kinds of foods - danish food, foreign food, pork. She eats 6 times a day very regularly, breakfast (bread and eggs) when she wakes up 4:30 in the morning, dinner at 19 and the last meal at 21. Often she eats alone, but sometimes her daughter is visiting as well. When asked in Danish about what food is for her, she gives a list of different types of meat.

If she has leftovers, she saves it for the next day - she doesnt throw out 'food is too expensive for that'. She enjoys eating with others - it's cosy to sit and eat and get a glass of redwine or white wine. She has never tried being at dinner at someone she doesnt know, but she has tried out at her sister once, where there was a lot of her sisters friends there. That was also nice to get to know new people. Her sister had invited her over the phone and she didnt write it down, she could remember it. She doesnt search for public dinners and wouldnt use a service that let her find people to eat with - every once in a while there is a coupon in the local newspaper 'Pay for 1, Eat for 2' for a buffet dinner at Dalle Valle, then she would do that with a friend.

[It seems that to her drinking together is the same as eating together, co-consuming] When she asks a friend for a coffee she texts or calls, and thats just whenever the mood is there, no special occasions. Every 1 or 2 weeks. She cant think of anything she wouldnt like to happen at a dinner. She has experienced awkward silence - just write now in the interview it went silent because she forgot what she wanted to say. When it happens at the pub either she or the other gets it starting again, or you just opt out and leave for the day.

In Danish the word for 'stranger' can mean both an 'unacquainted person' and a 'foreigner' and maybe because both of us are colored she thought we meant foreigners, but in any case she wouldnt just dine with strangers.

She says 'one does not always feel safe about strangers [...] one hears so many things'.

She has lived here for 10 months and greets the people living here but doesnt talk with them, and one of her immediate neighbors she has only met once yet.

She wont explicitly say now whether she will participate or not, but suggests that we can just ring the door again when the time comes.

PLV5

[male/female - early and late 30s - monthly rent: 6000kr]

This couple were walking home with their baby. They eat together almost every day, breakfast and dinner is asian/pakistani food and spicy that they cook at home. Lunch is at work and a bit hectic. They dont plan when to eat, just when they are hungry.

The most important thing about eating together is to have time together, just sitting there also talking about each others lives. Food for them is enjoyment of being together, the social aspect.

They value using their leftovers instead of throwing it out.

While they havent tried being at a dinner where they knew absolutely none, they have tried dinners where they knew only 1 person. In this occasion there were 20-25 people in total, some from their home country and the conversations were about the home country or politics and similar. They were invited by phonecall a week in advance and could remember it without having to write it down.

Awkward silences have happened - they happen 'where you dont know what to say'. Then either us or them starts talking, or we just sit and wait.

They dont search for public dinners, but if there was a service that let you eat with others, they would think it could be interesting to go to try new foods, 'but it depends on time' and energy. They would prefer such a service to be on the noticeboards in the residential areas or in libraries so that people can see when it is. They wouldnt just go to someone random who invited them, either they need to know the person or know someone who's going - but above both of these is that there needs to be a reason to go there, a reason that they can relate to - like a 'Meet Neighbors' theme is only relevant if they can relate and want to do that already. And good food! They wouldnt go for a dinner as an exchange of services - that wouldnt be a good reason - dinner is about enjoying good and socialising and '[they] dont think there should be any other reason'.

'Mostly [they] invite by calling' but if they know them well they just tell them in person when they meet. Inviting over SMS is rude they think.

When they invite, guests can help decorate the table but nothing else. If its family then its different, then we tell them to bring something. In general, guests often start to help out by themselves.

The worst thing that could happen at a dinner is if guests dont like the food and leave, or if children break expensive things.

1 Food	<ul style="list-style-type: none"> What kind of food do you like? (home food, take away, restaurant) What do you eat? Where do you eat? <ul style="list-style-type: none"> Do you make a plan when you are going to eat? Do you prefer to eat alone? 	<ul style="list-style-type: none"> Have you ever hosted people for a dinner? Do you remember having a conversation with some of the other people there? What motivated you/held you back? How did you start talking? (Did you start the conversion or did they?) What did you talk about? (Work, Weather) What was your experience with having people over for dinner? How did you send invitations? (How did you let them know who they are invited?) At what occasions do you invite people over for dinner? Would you invite people over for breakfast? How would you send those invitations? Could you invite people you didn't know to eat at your home? What if a service would let you know a little about them first? What information would you like to have? What platform would you like to have this information (website, sms, voice, email, app, facebook) How would you invite them? (email, website, phone, etc) How many would you invite at maximum? Would you like the guest to help you with the cooking? What would you not accept a stranger to do in your home? Would you have any other purpose than providing food Like feeling good about yourself (hedonism) Providing a free meal (altruism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting connected to the society around you Earning money (capitalism) Exchanging services (bartering)
2 Eating habits	<ul style="list-style-type: none"> Where do you eat? Do you often have leftovers? What do you do with your food waste? 	<ul style="list-style-type: none"> What did you talk about? (Work, Weather) How was the conversation or did they? (talking) What did you talk about? (Work, Weather) What media do you use to find those events? / How do you find information about those events? If there is a specialised service that lets people find others to eat with, will you join? What kind of platform would you like this service to be on? (sms, voice, website, facebook, app) If you are invited to a dinner at the home of someone you don't know, would you go? <ul style="list-style-type: none"> Would you go if a friend was also going? Would you go if the service allowed you to lookup information about the other participants first? What kind of information? Would you go? Would you go if another friend was also going? Are you invited for a dinner where there was no information about who was coming (it could be people you know or people you don't know), only that they have been matched by a computer as 'recommended' individuals to your preferences, would you go? What action or speaking would you not accept or tolerate from a host? What should happen at a dinner before you just left in angry fury? Do you have any other goals than eating when you attend such an event/home dinner? Would you like to help prepare the food also? Would you like to help in providing the groceries? Would you like to help clean up afterwards also? Like feeling good about yourself (hedonism) Eating a free meal (capitalism/egoism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting more connected to the society around you Exchanging services (bartering)
7 Hosting	<ul style="list-style-type: none"> What kind of food do you like? (home food, take away, restaurant) What do you eat? Where do you eat? Do you make a plan when you are going to eat? Do you prefer to eat alone? 	<ul style="list-style-type: none"> Have you ever hosted people for a dinner? Do you remember having a conversation with some of the other people there? What motivated you/held you back? How did you start talking? (Did you start the conversion or did they?) What did you talk about? (Work, Weather) What was your experience with having people over for dinner? How did you send invitations? (How did you let them know who they are invited?) At what occasions do you invite people over for dinner? Would you invite people over for breakfast? How would you send those invitations? Could you invite people you didn't know to eat at your home? What if a service would let you know a little about them first? What information would you like to have? What platform would you like to have this information (website, sms, voice, email, app, facebook) How would you invite them? (email, website, phone, etc) How many would you invite at maximum? Would you like the guest to help you with the cooking? What would you not accept a stranger to do in your home? Would you have any other purpose than providing food Like feeling good about yourself (hedonism) Providing a free meal (altruism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting connected to the society around you Earning money (capitalism) Exchanging services (bartering)
3 Nonphysical aspects of food	<ul style="list-style-type: none"> What is food to you? What is a lunch to you? What motivates you? What do you do with your food waste? 	<ul style="list-style-type: none"> How was the conversation or did they? (talking) What did you talk about? (Work, Weather) What media do you use to find those events? / How do you find information about those events? If there is a specialised service that lets people find others to eat with, will you join? What kind of platform would you like this service to be on? (sms, voice, website, facebook, app) If you are invited to a dinner at the home of someone you don't know, would you go? <ul style="list-style-type: none"> Would you go if a friend was also going? Would you go if the service allowed you to lookup information about the other participants first? What kind of information? Would you go? Would you go if another friend was also going? Are you invited for a dinner where there was no information about who was coming (it could be people you know or people you don't know), only that they have been matched by a computer as 'recommended' individuals to your preferences, would you go? What action or speaking would you not accept or tolerate from a host? What should happen at a dinner before you just left in angry fury? Do you have any other goals than eating when you attend such an event/home dinner? Would you like to help prepare the food also? Would you like to help in providing the groceries? Would you like to help clean up afterwards also? Like feeling good about yourself (hedonism) Eating a free meal (capitalism/egoism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting more connected to the society around you Exchanging services (bartering)
4 Food waste	<ul style="list-style-type: none"> Do you often have leftovers? What do you do with your food waste? 	<ul style="list-style-type: none"> How was the conversation or did they? (talking) What did you talk about? (Work, Weather) What media do you use to find those events? / How do you find information about those events? If there is a specialised service that lets people find others to eat with, will you join? What kind of platform would you like this service to be on? (sms, voice, website, facebook, app) If you are invited to a dinner at the home of someone you don't know, would you go? <ul style="list-style-type: none"> Would you go if a friend was also going? Would you go if the service allowed you to lookup information about the other participants first? What kind of information? Would you go? Would you go if another friend was also going? Are you invited for a dinner where there was no information about who was coming (it could be people you know or people you don't know), only that they have been matched by a computer as 'recommended' individuals to your preferences, would you go? What action or speaking would you not accept or tolerate from a host? What should happen at a dinner before you just left in angry fury? Do you have any other goals than eating when you attend such an event/home dinner? Would you like to help prepare the food also? Would you like to help in providing the groceries? Would you like to help clean up afterwards also? Like feeling good about yourself (hedonism) Eating a free meal (capitalism/egoism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting more connected to the society around you Exchanging services (bartering)
5 Eating together	<ul style="list-style-type: none"> Do you like to eat with other people What is a dinner to you? What is the most important aspect of eating together? 	<ul style="list-style-type: none"> How was the conversation or did they? (talking) What did you talk about? (Work, Weather) What media do you use to find those events? / How do you find information about those events? If there is a specialised service that lets people find others to eat with, will you join? What kind of platform would you like this service to be on? (sms, voice, website, facebook, app) If you are invited to a dinner at the home of someone you don't know, would you go? <ul style="list-style-type: none"> Would you go if a friend was also going? Would you go if the service allowed you to lookup information about the other participants first? What kind of information? Would you go? Would you go if another friend was also going? Are you invited for a dinner where there was no information about who was coming (it could be people you know or people you don't know), only that they have been matched by a computer as 'recommended' individuals to your preferences, would you go? What action or speaking would you not accept or tolerate from a host? What should happen at a dinner before you just left in angry fury? Do you have any other goals than eating when you attend such an event/home dinner? Would you like to help prepare the food also? Would you like to help in providing the groceries? Would you like to help clean up afterwards also? Like feeling good about yourself (hedonism) Eating a free meal (capitalism/egoism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting more connected to the society around you Exchanging services (bartering)
6 Guesting	<ul style="list-style-type: none"> Have you ever been to a dinner where you didn't know anyone? (walking) How was it? What is your experience about going to someone else's home for dinner? How were you invited? (email, facebook, SMS, paper invitation, voice call) How do you keep track of when it is? (immediate future or planning long ahead) Can you tell a story about once you were invited over for dinner? Do you remember holding a conversation with some of the other people there? What motivates you? What did you talk about? (Work, Weather) What media do you use to find those events? / How do you find information about those events? If there is a specialised service that lets people find others to eat with, will you join? What kind of platform would you like this service to be on? (sms, voice, website, facebook, app) If you are invited to a dinner at the home of someone you don't know, would you go? <ul style="list-style-type: none"> Would you go if a friend was also going? Would you go if the service allowed you to lookup information about the other participants first? What kind of information? Would you go? Would you go if another friend was also going? Are you invited for a dinner at a friends home, but you don't know any of the other people coming, people you know or people you don't know), only that they have been matched by a computer as 'recommended' individuals to your preferences, would you go? What action or speaking would you not accept or tolerate from a host? What should happen at a dinner before you just left in angry fury? Do you have any other goals than eating when you attend such an event/home dinner? Would you like to help prepare the food also? Would you like to help in providing the groceries? Would you like to help clean up afterwards also? Like feeling good about yourself (hedonism) Eating a free meal (capitalism/egoism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting more connected to the society around you Exchanging services (bartering) 	
7 Hosting	<ul style="list-style-type: none"> Have you ever hosted people for a dinner? Do you remember having a conversation with some of the other people there? What motivated you/held you back? How did you start talking? (Did you start the conversion or did they?) What did you talk about? (Work, Weather) What was your experience with having people over for dinner? How did you send invitations? (How did you let them know who they are invited?) At what occasions do you invite people over for dinner? Would you invite people over for breakfast? How would you send those invitations? Could you invite people you didn't know to eat at your home? What if a service would let you know a little about them first? What information would you like to have? What platform would you like to have this information (website, sms, voice, email, app, facebook) How would you invite them? (email, website, phone, etc) How many would you invite at maximum? Would you like the guest to help you with the cooking? What would you not accept a stranger to do in your home? Would you have any other purpose than providing food Like feeling good about yourself (hedonism) Providing a free meal (altruism) Creating relationships (mutualism) Getting to know the neighborhood/community Getting connected to the society around you Earning money (capitalism) Exchanging services (bartering) 	
8 Special experiences	<ul style="list-style-type: none"> What would you not like to experience at a dinner? Have you experienced moments of awkward silence during a dinner? How did it happen? What triggered it? With whom? Where? Under what circumstances? How did it wear off again/what disrupted it? What did you do to break it? What held you back? Would you like to go on a blind date? Have you been on a blind date? How did it start and how did it stop? Where did it happen? Where there any moments of awkward silence? 	
9 Strangers	<ul style="list-style-type: none"> Do you often speak with strangers? (new people) Where do you like to speak to strangers? Could you host or attend a dinner with strangers? What kind of platform would you like to have his information presented on? (sms, facebook, website, app) What would you need to know to feel comfortable? Have you been at a dinner where the rest of the people were strangers? What happened? How was it? What experience did it give you? What is a stranger to you? 	
10 Usage of the service	<ul style="list-style-type: none"> Would you Host or Guest more dinner events if there was a webservice that made it easy? What would be the most important aspect of such a service in order for you to find it easy? When do you know dinner? 	
11 Neighbour	<ul style="list-style-type: none"> What is your relationship with your neighbour? Have you ever eaten together? Have you ever asked your neighbour for milk, salt, sugar or other groceries? 	
12 FOR WIZARD OF OZ	<ul style="list-style-type: none"> Would you like to participate in the development of this project? Would you like to play the role of a guest or host or both? – then take picture How can we contact you? 	

Figure A-1: Interview guide used for Field Study

Appendix B

Phase 2

B.1 Screenshots of outgoing communication

B.2 Google Documents available

- **Google Form - Feedback** <http://goo.gl/forms/M3EJUJupI2>
- **Google Form - Registration** <http://goo.gl/forms/YioMXeZwr1>
- **Google Document - Service Description**¹ (Presented with the concept of Xenia <http://bit.ly/kitchydescription> and without <http://bit.ly/kitchyservice>)
- **Google Document - Practical Information** <http://bit.ly/kitchypractical>
- **Google Document - Terms of Service** <https://drive.google.com/open?id=1sBa0C7ZxyeXgtiieLWsdtABHbvWi-f55MhnIZlg&authuser=0>(Though this document was never presented to end users)
- **MBTI table** of personalities mapped to cases <http://bit.ly/HM2014Appendix> (Sheet 2)

Number of clicks on links shared via Facebook, Email and SMS

Using bitly.com as a URL-shortening service, we were provided stats of when and how many times the links were used, which sites they came from and from which countries.

¹The color use in the document is loosely based on popular beliefs on color and emotions http://thelogocompany.net/wp-content/uploads/2013/01/Color_Emotion_Guide22.png

Mad, mennesker og måltider - Et specialeprojekt ved ITU /// Food, people and meals - A thesis project at ITU - Google Chrome

<https://pod51046.outlook.com/owa/projection.aspx>

Mad, mennesker og måltider - Et specialeprojekt ved ITU /// Food, people and meals - A thesis project at ITU

X DELETE **← REPLY** **↔ REPLY ALL** **→ FORWARD** **...**

Mark as unread

 Paul Olutokunbo Kristian Henckel-Ojo
Fri 06/06/2014 14:20
projThesis

Show all 21 recipients

To: Med Matovu; Paul Olutokunbo Kristian Henckel-Ojo;
Cc: Isabel Cristina Gonçalves Froes;

>>> ENGLISH TRANSLATION BELOW <<<

1 Hej

2 Sommeren er på vej, solen er her allerede, og vores speciale projekt om mad, mennesker og måltider er snart klar til at træde ind i sin

3 Kan du huske os? Det er ca 2 måneder siden at vi kom forbi for at interviewe dig i forbindelse med vores projekt om mad. Vi havde en

4 første test-fase.

5 Nu kontakter vi dig fordi vi gerne vil have dig med i den næste test-fase - en middag mellem folk som ikke har mødt hinanden. For at

6 lave et system hvori folk kan møde andre at spise sammen med tænker vi at det vil være naturligt hvis folk kan læse og se et billede af

7 dem/den der er gæst eller vært.

8 Hvis du stadig er interesseret i at medvirke vil vi gerne be dig om at:

9 1. Sende et profil billede af dig selv

10 2. Fortælle om du vil prøve rollen som vært eller gæst eller enten

11 3. Give en kort beskrivelse af hvilke interesser du har (bøger, film, sport, hobbier, rejser osv)

12 4. Give standard demografiske oplysninger såsom: køn, alder, beskæftigelse, oprindelsesland

13 samt mad præferencer (vegetar, gluten-allergikere, paleo-dietæt osv).

14 Henover de næste tre ugers tid ca., vil vi sende to emails til der beskriver de praktiske detaljer omkring den planlagte middag.

15 Hvis det er muligt vil vi også gerne be om dit mobil nummer da vi planlægger at vores system skal være SMS drevet. Obs: Dit

16 mobil nummer vil ikke blive videregivet til tredjepart og du vil til enhver tid have mulighed for at melde dig ud af SMS systemet ved at

17 skrive en email til os, sende en SMS med teksten "#STOP" eller "#FORGET ME" eller gennem din profil på den lukkede hjemmeside

18 som bliver oprettet som forum for dette projekt.

19 Som belønning for din medvirken kan vi garantere en gratis middag og en autentisk brugeroplevelse som det basale, og derudover er vi

20 også igang med at finde sponsorer til andre små præmier som tak for din medvirken.

21 Alle oplysninger du overbringer vil blive håndteret som strengt fortroligt og kun brugt i forbindelse med dette speciale projekt.

22 Vi sætter stor pris på din medvirken.

23 Skriv hvis der er nogle spørgsmål.

24 Tak

25 **>>>ENGLISH<<<**

26 Hi

27 The summer is on its way, the sun is already here and our thesis regarding food, people and meals is ready to step into its first test-

28 phase.

29 Do you remember us? It has been about 2 months ago since we came about to interview you regarding our project on food. We had a

30 lot of different questions and had exciting talks, and at the end we asked if we could get your email address.

31 Now we are contacting you because we want to prepare for the next testing-phase - a dinner among previously unacquainted people. In

32 order to create a system in which people can comfortably find and meet others to eat with, we find it natural to allow people to read a

33 bit and see a picture of those who are the guests or hosts.

34 If possible we would also like to have your mobile phone number because we are aiming to make our system SMS driven. Notice: Your

35 phone number will never be handed over to third party and you will always have the possibility to unroll from the SMS system either by

36 sending us an email, sending a SMS with the text "#STOP" or "#FORGET ME" or through your profile on the closed website which will

37 be created to host this system.

38 As a reward for your participation you will at least be assured a nice free meal and an authentic user experience, and we are also

39 trying to find sponsors to offer other small tokens of our appreciation.

40 All information you send to us will be treated as strictly confidential and only used in connection with this thesis.

41 We highly appreciate your participation and your time.

42 Feel free to write if you have any questions.

43 Thanks

44 Paul Henckel and Med Matovu

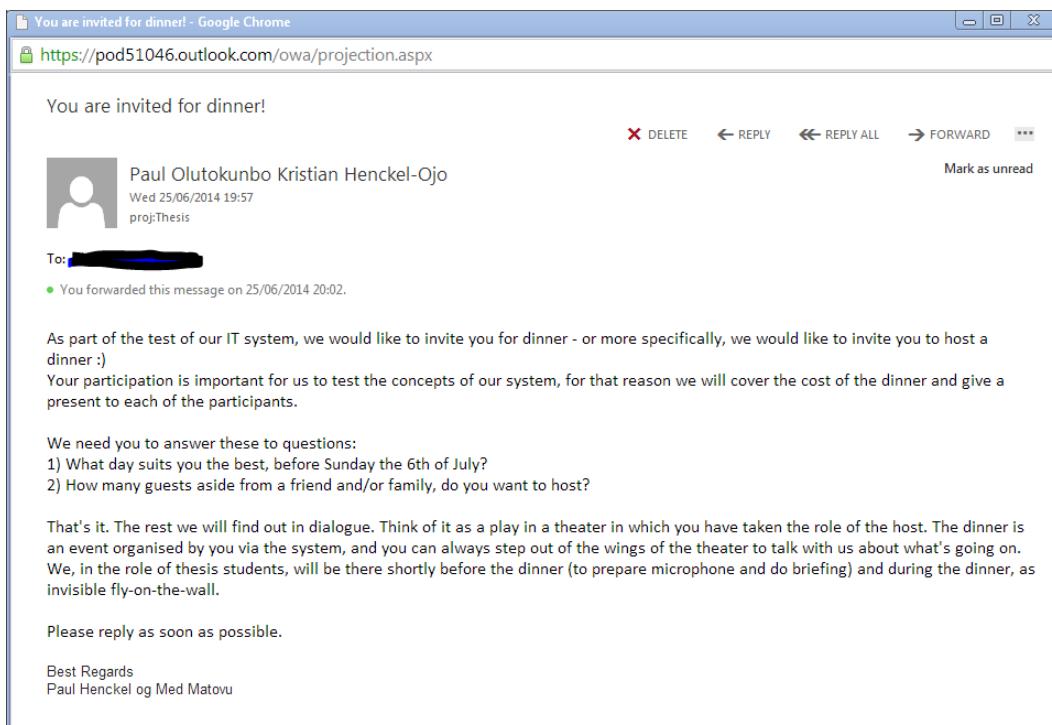


Figure B-2: Email on June 25th 2014, sent to the 4 interviewees who indicated they would like to host.

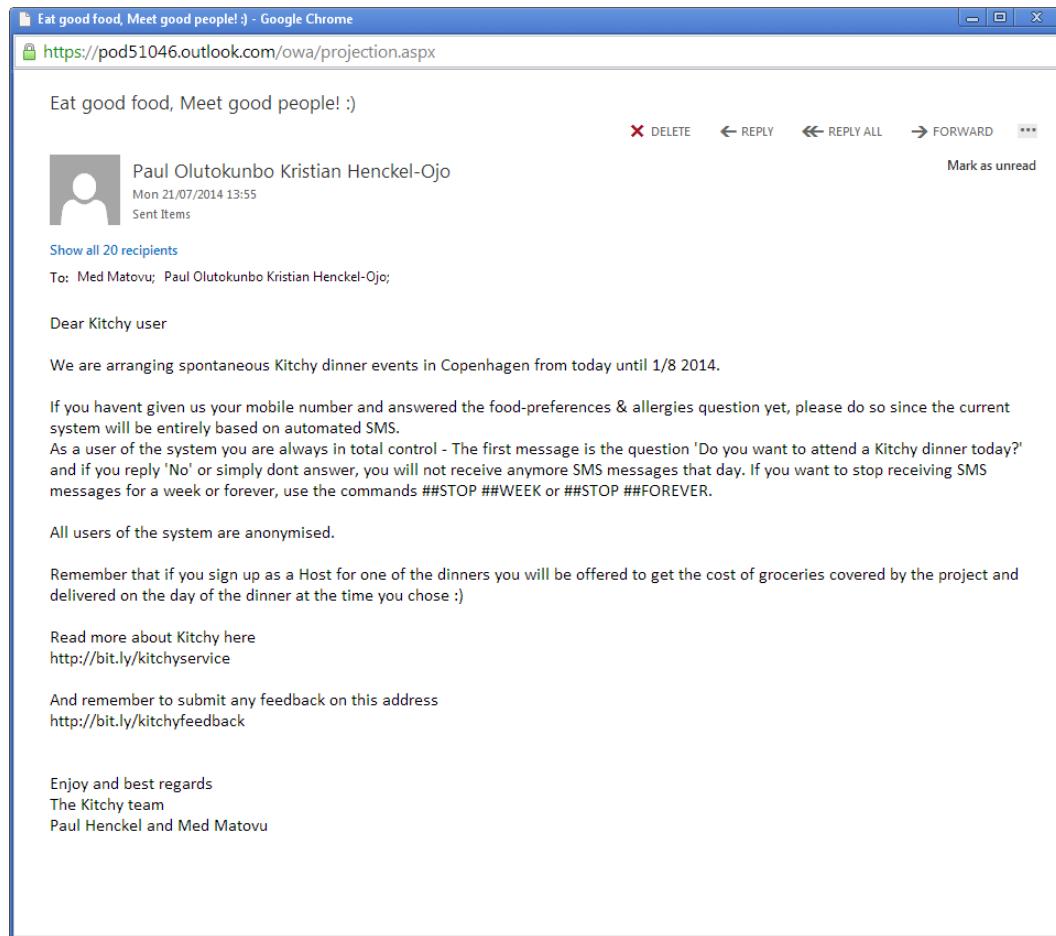


Figure B-3: Email on July 21st 2014, containing a link to the document that introduces the service, NOT Xenia

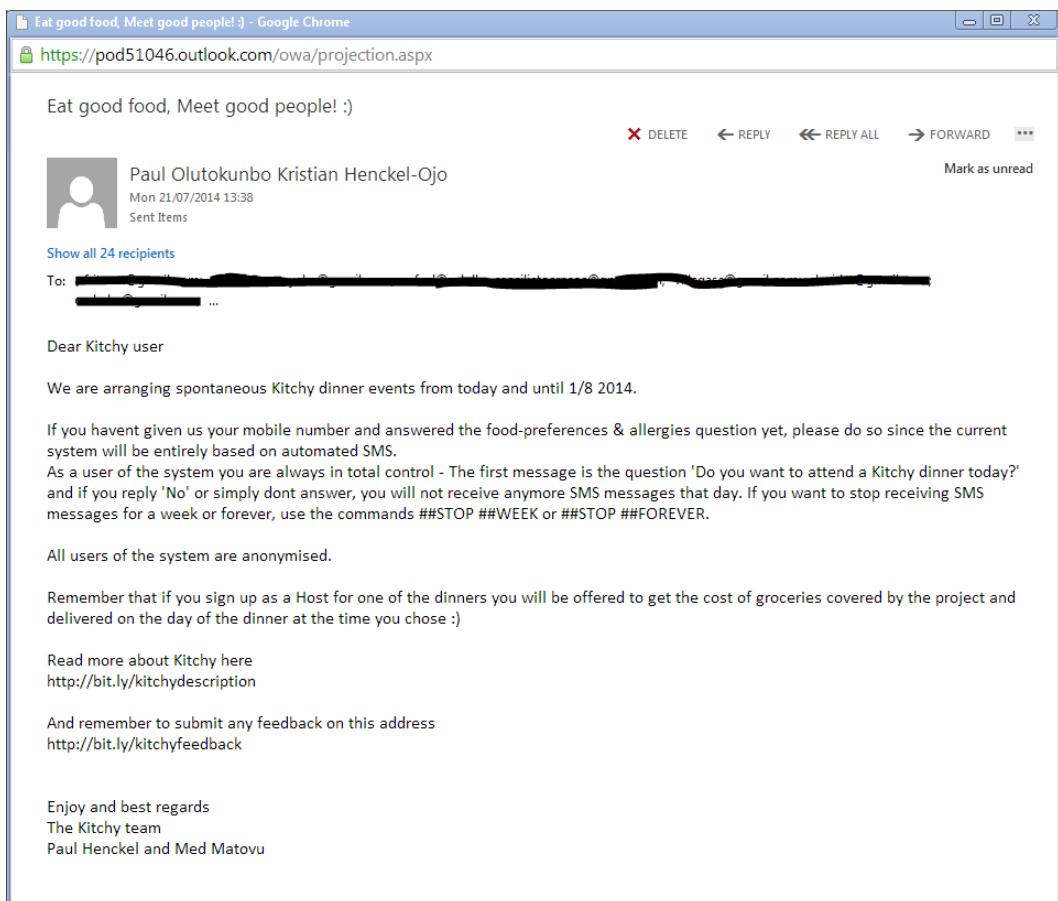


Figure B-4: Email on July 21st 2014, containing a link to the document that introduces the service AND Xenia

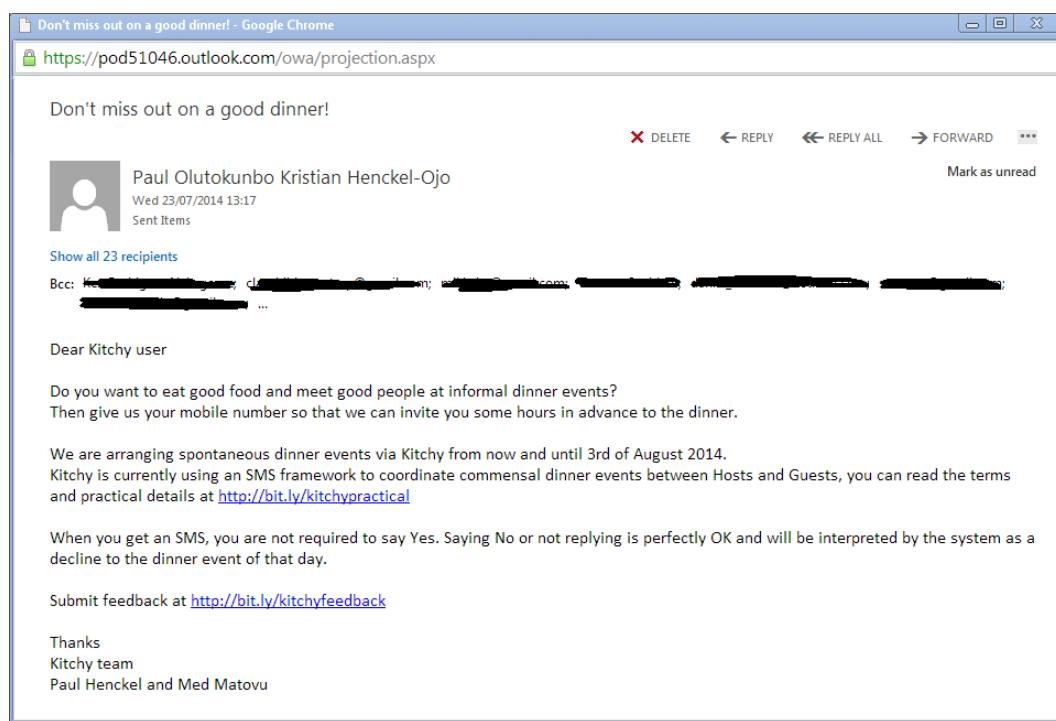


Figure B-5: Email on July 23rd 2014, sent to those users whom we did not have the mobile number for.

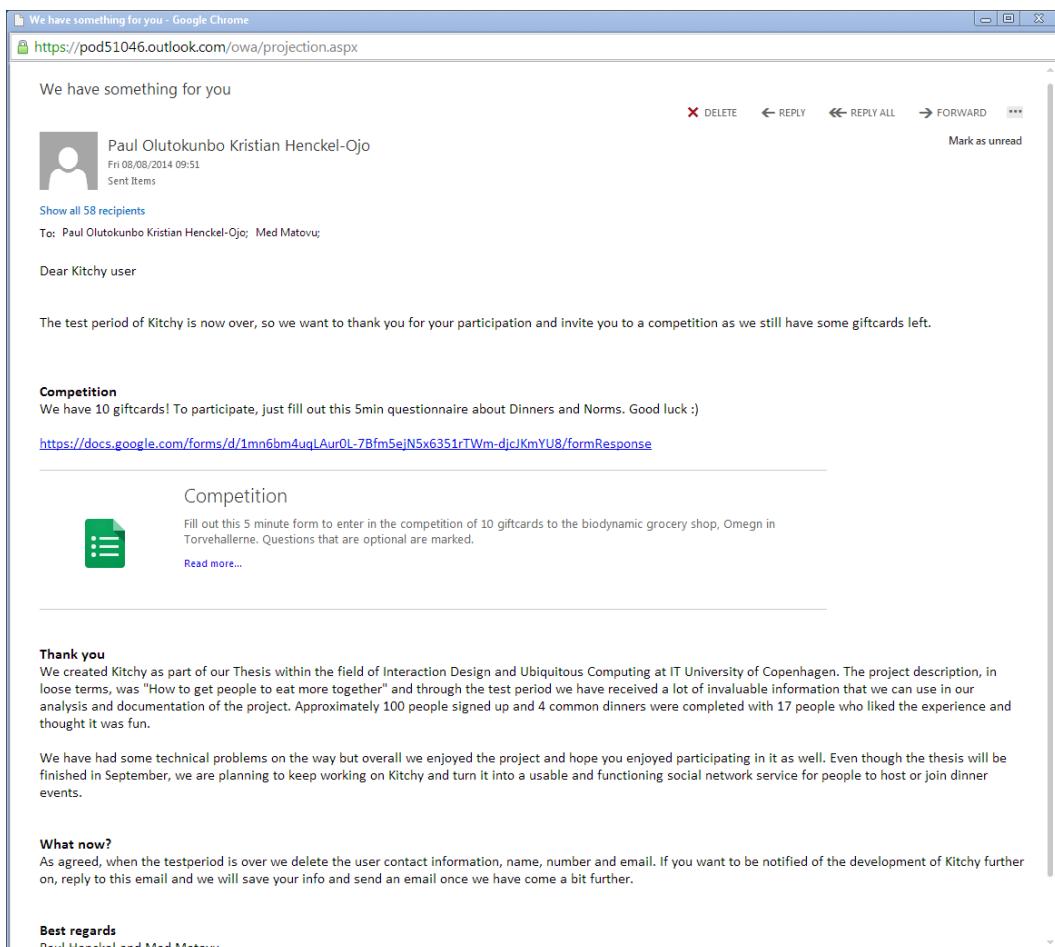


Figure B-6: Email on August 8th 2014, sent to all participants, announcing a contest.

Customer journey map on SMS

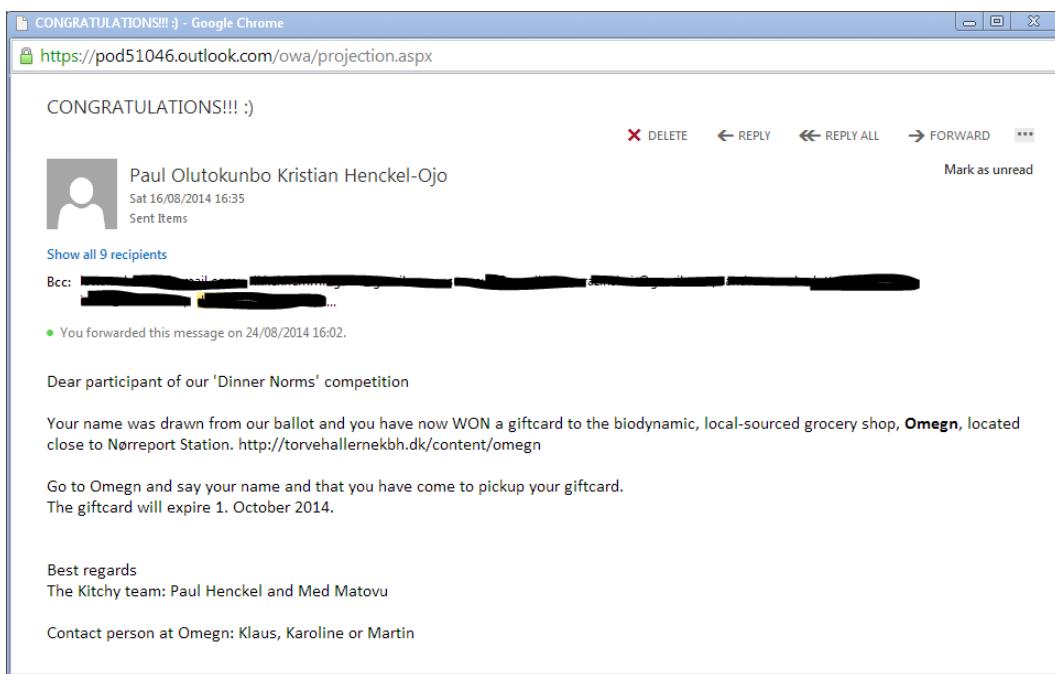


Figure B-7: Email on August 16th 2014, sent to winners of the contest.

Eat good food & Meet good people

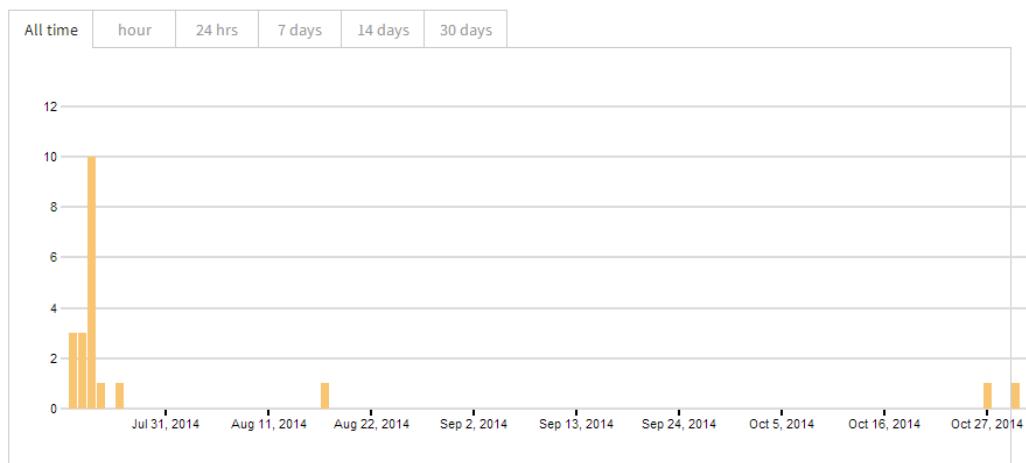


We are building a social food network for people to meet over dinner. If you want to participate, please send a SMS message to **+45 53621984** with the following information:

- 1) Food preferences and allergies
- 2) Which neighborhood you live in
- 3) Your email address

Kitchy 2014

Figure B-8: Paper poster put up inside the ITU building in July 2014



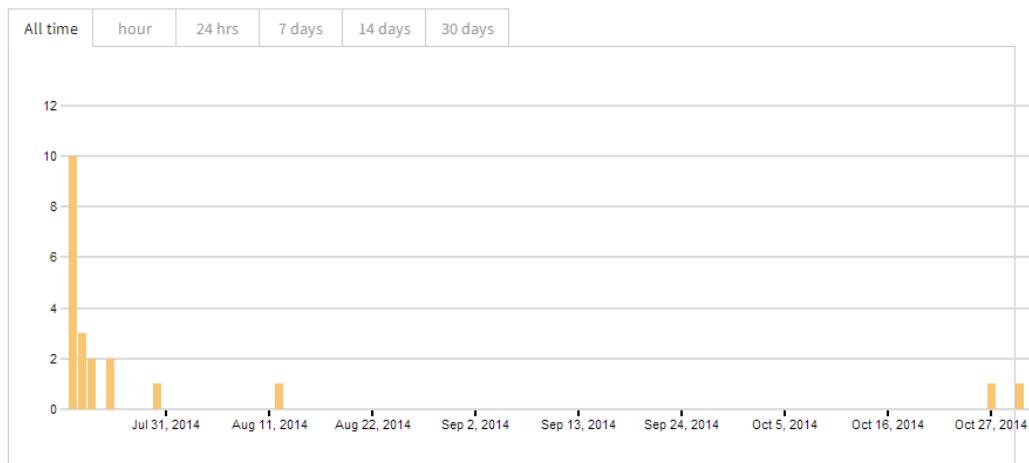
WHERE THIS BITLINK WAS SHARED



GEOGRAPHIC DISTRIBUTION OF CLICKS



Figure B-9



WHERE THIS BITLINK WAS SHARED

Facebook
1 click [\(View\)](#)

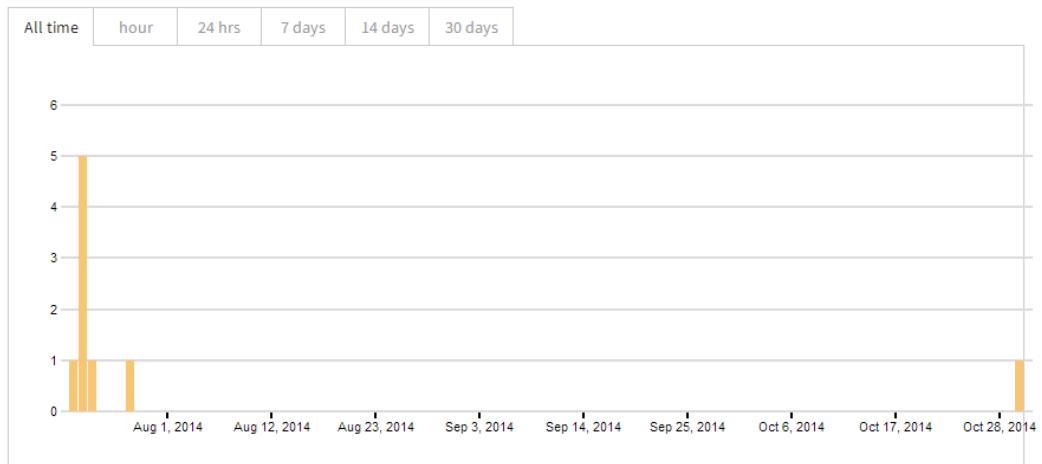
Other Sites
1 click [\(View\)](#)

Unknown
19 clicks [\(View\)](#)

GEOGRAPHIC DISTRIBUTION OF CLICKS



Figure B-10



WHERE THIS BITLINK WAS SHARED

Other Sites

5 clicks [\(View\)](#)

Unknown

4 clicks [\(View\)](#)

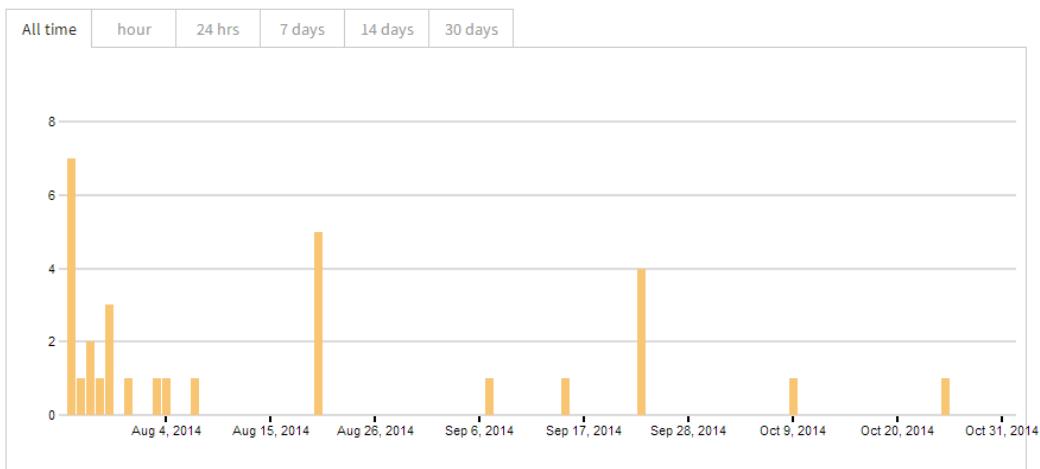
GEOGRAPHIC DISTRIBUTION OF CLICKS



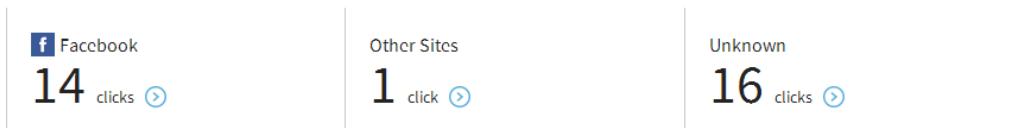
Top Countries (clicks / % of total)

Denmark	 7	78%
United States	 1	11%
Switzerland	 1	11%

Figure B-11



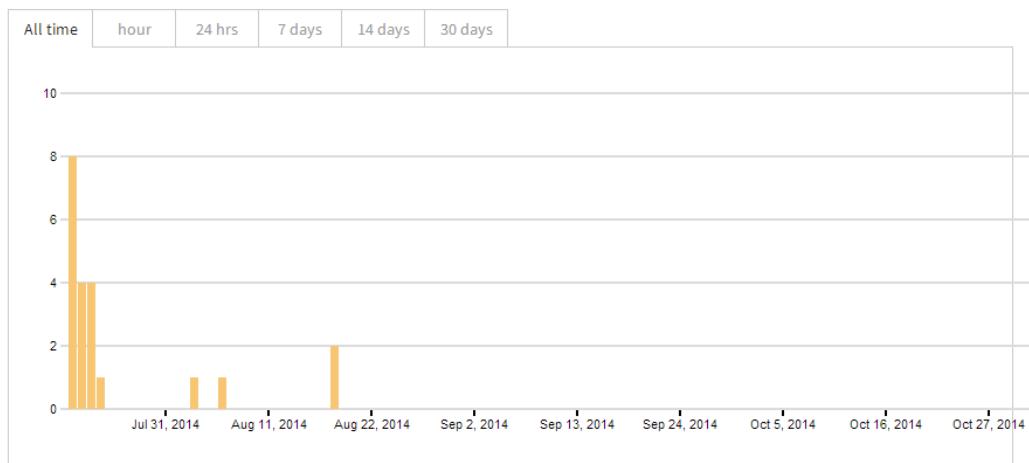
WHERE THIS BITLINK WAS SHARED



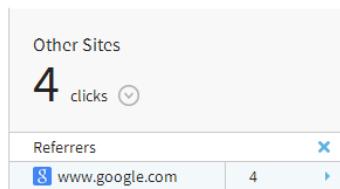
GEOGRAPHIC DISTRIBUTION OF CLICKS



Figure B-12



WHERE THIS BITLINK WAS SHARED

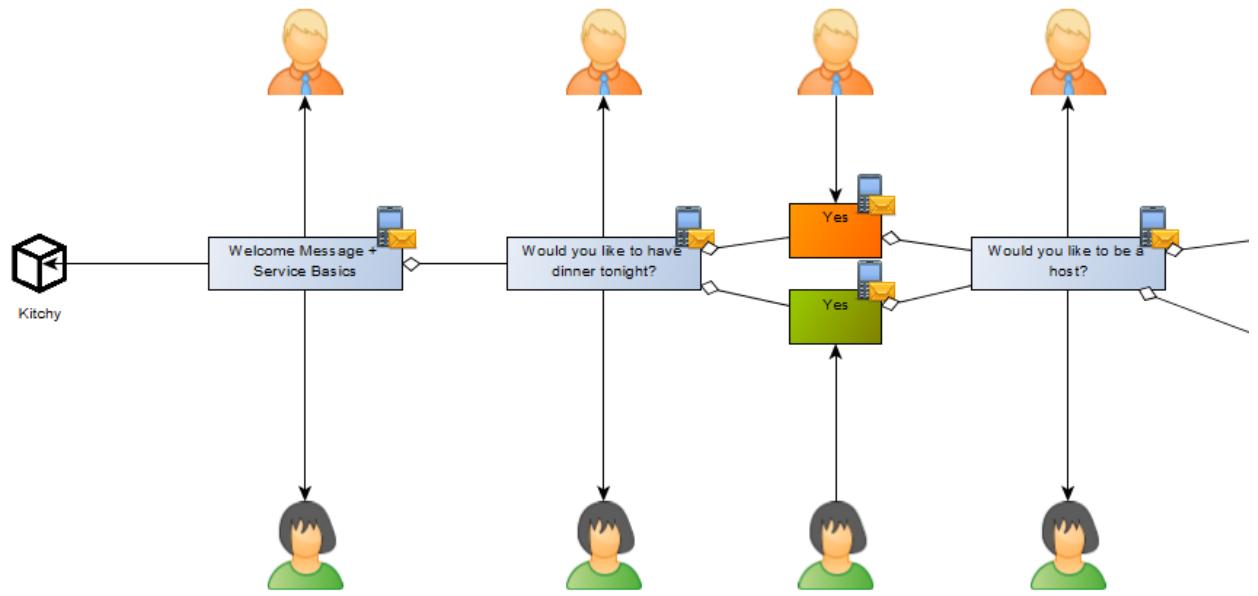


Unknown
17 clicks

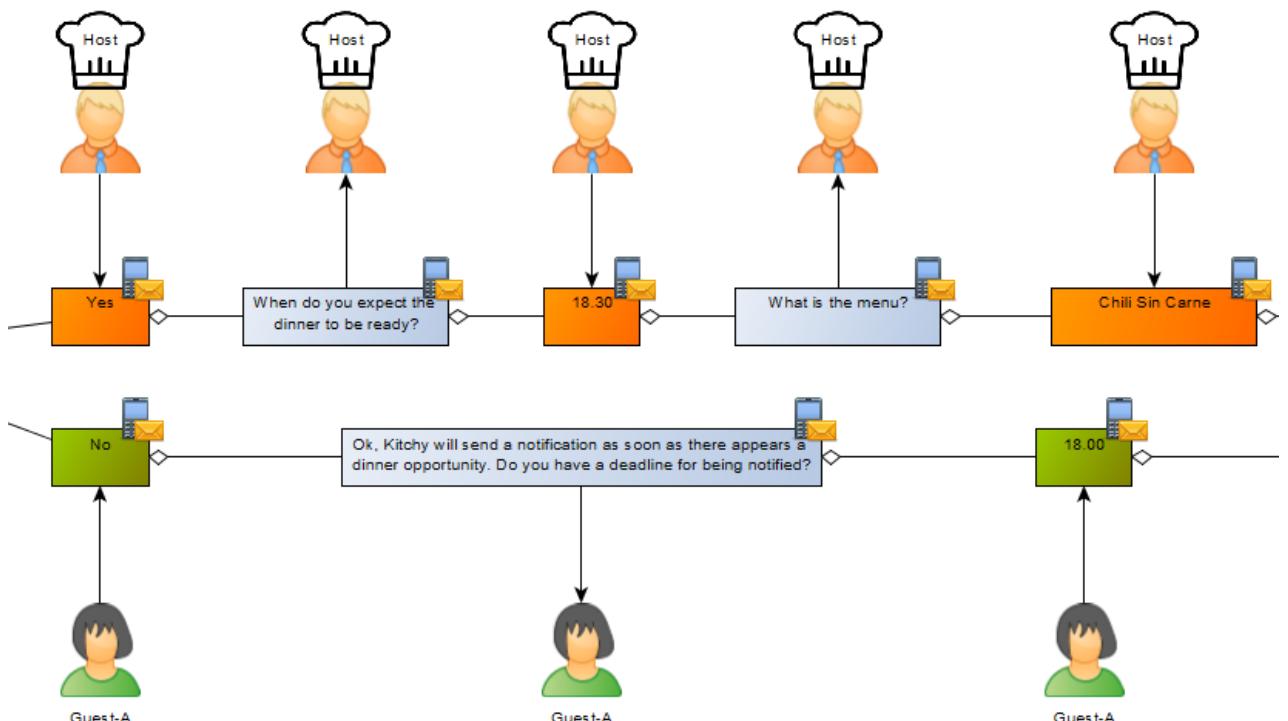
GEOGRAPHIC DISTRIBUTION OF CLICKS



Figure B-13

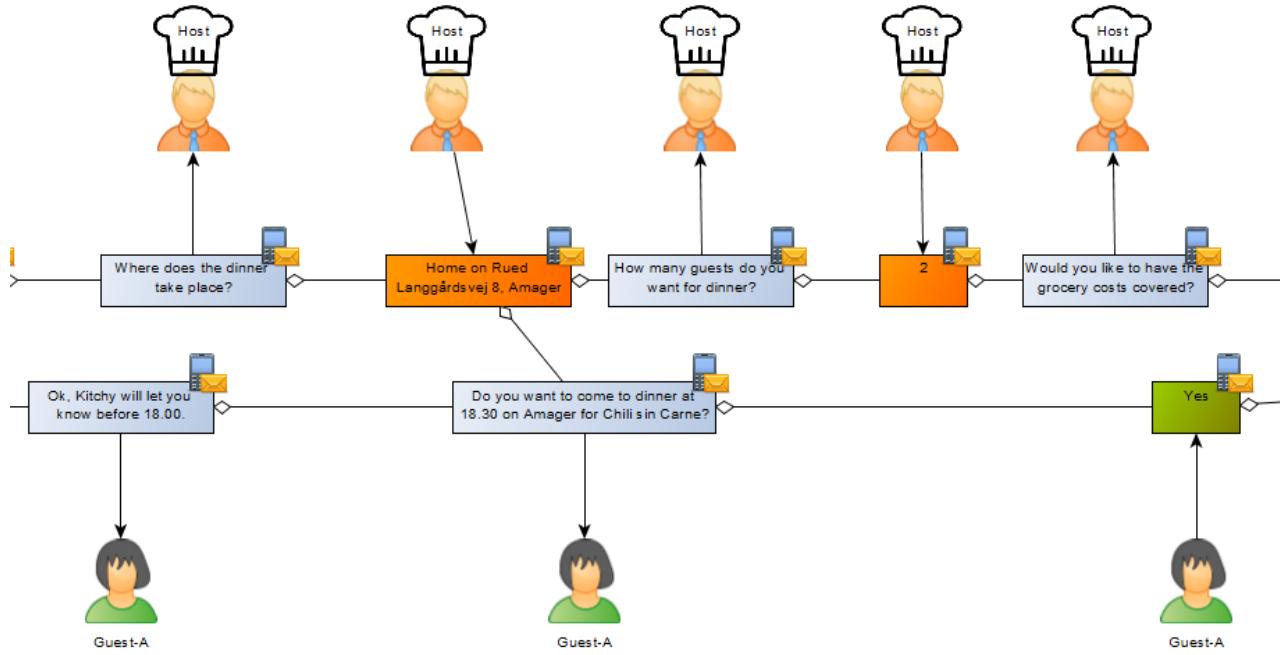


(a) Journey map 1:

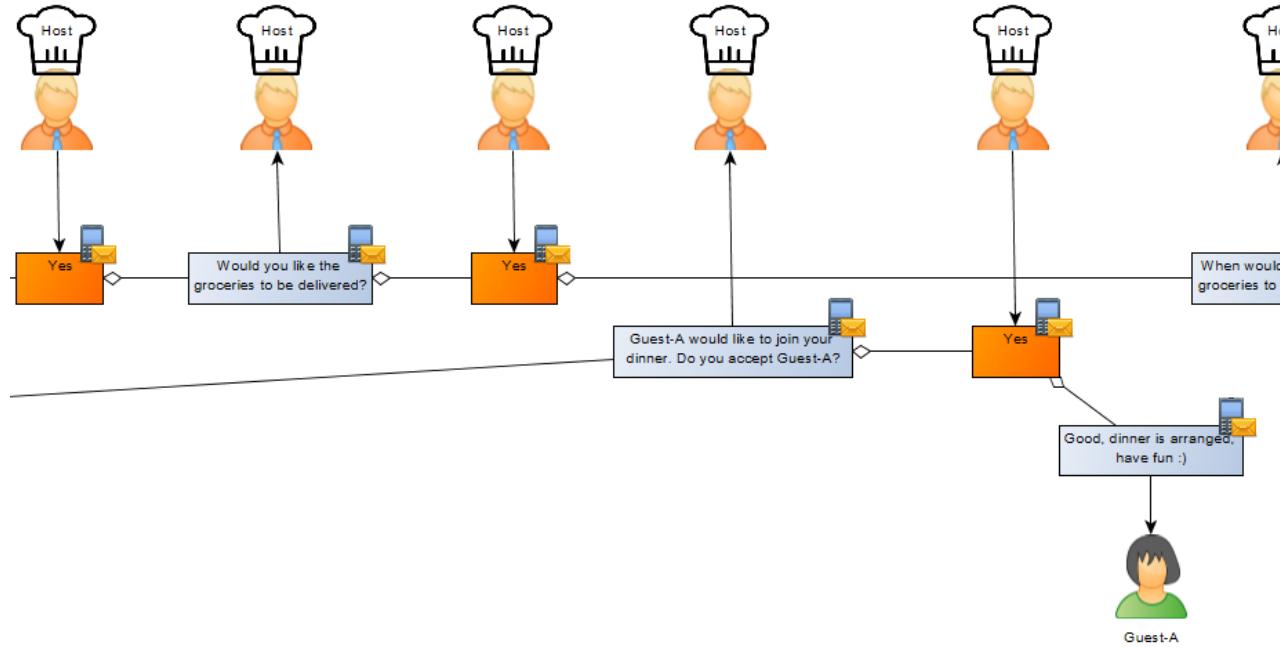


(b) Journey map 2:

Figure B-14

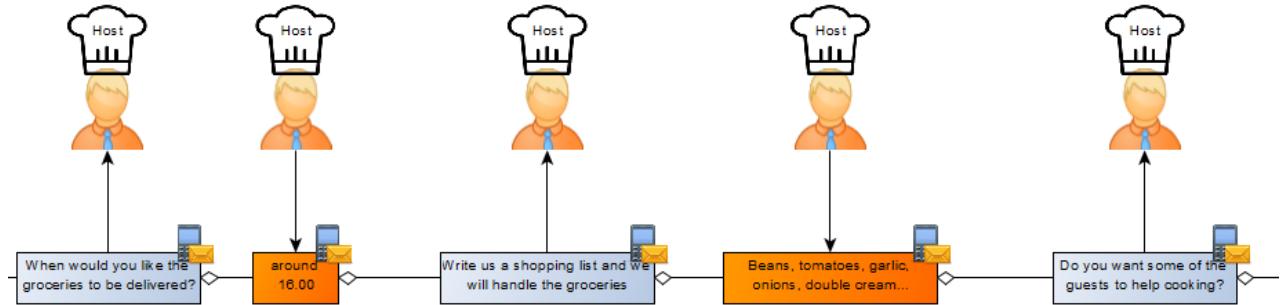


(a) Journey map 3:

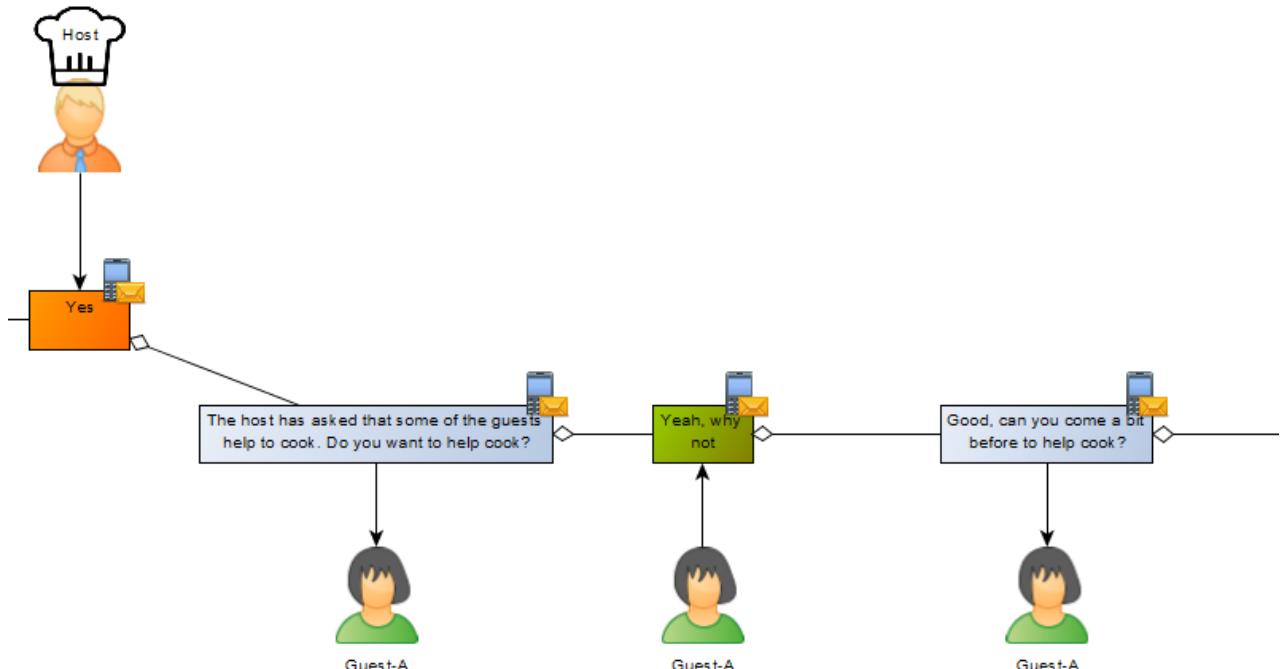


(b) Journey map 4:

Figure B-15

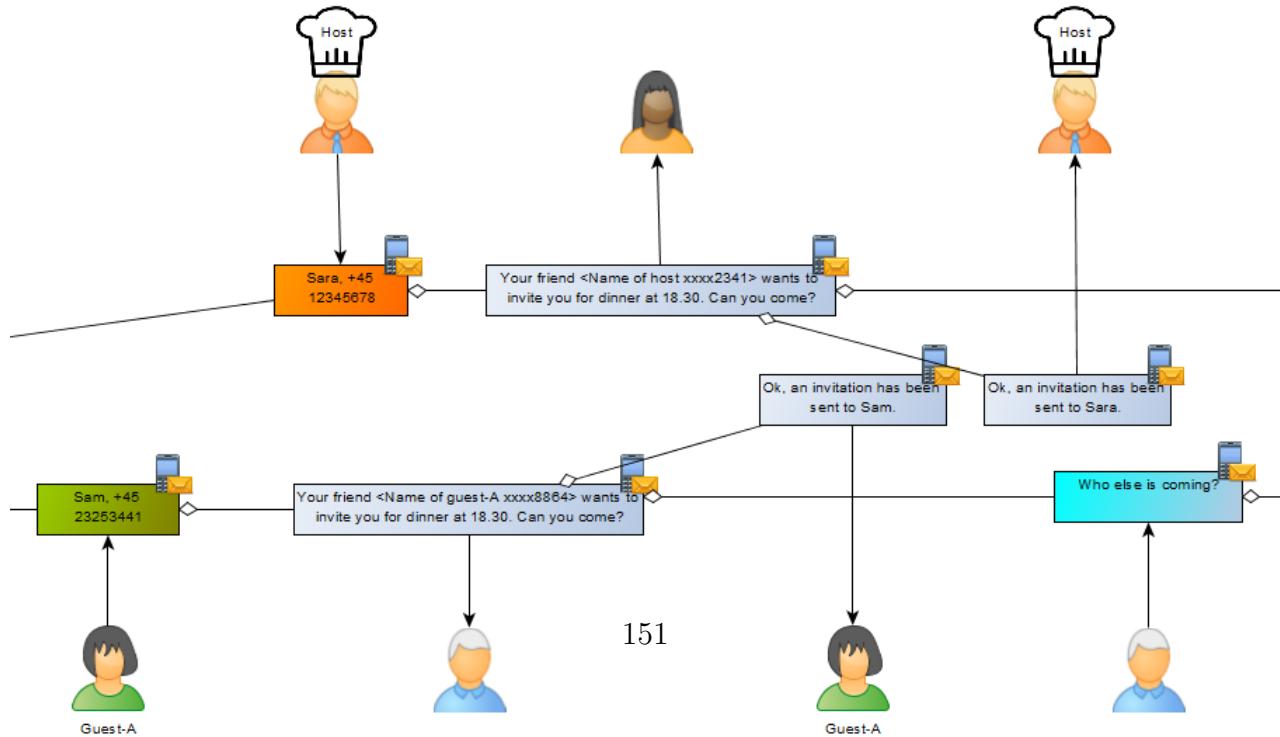
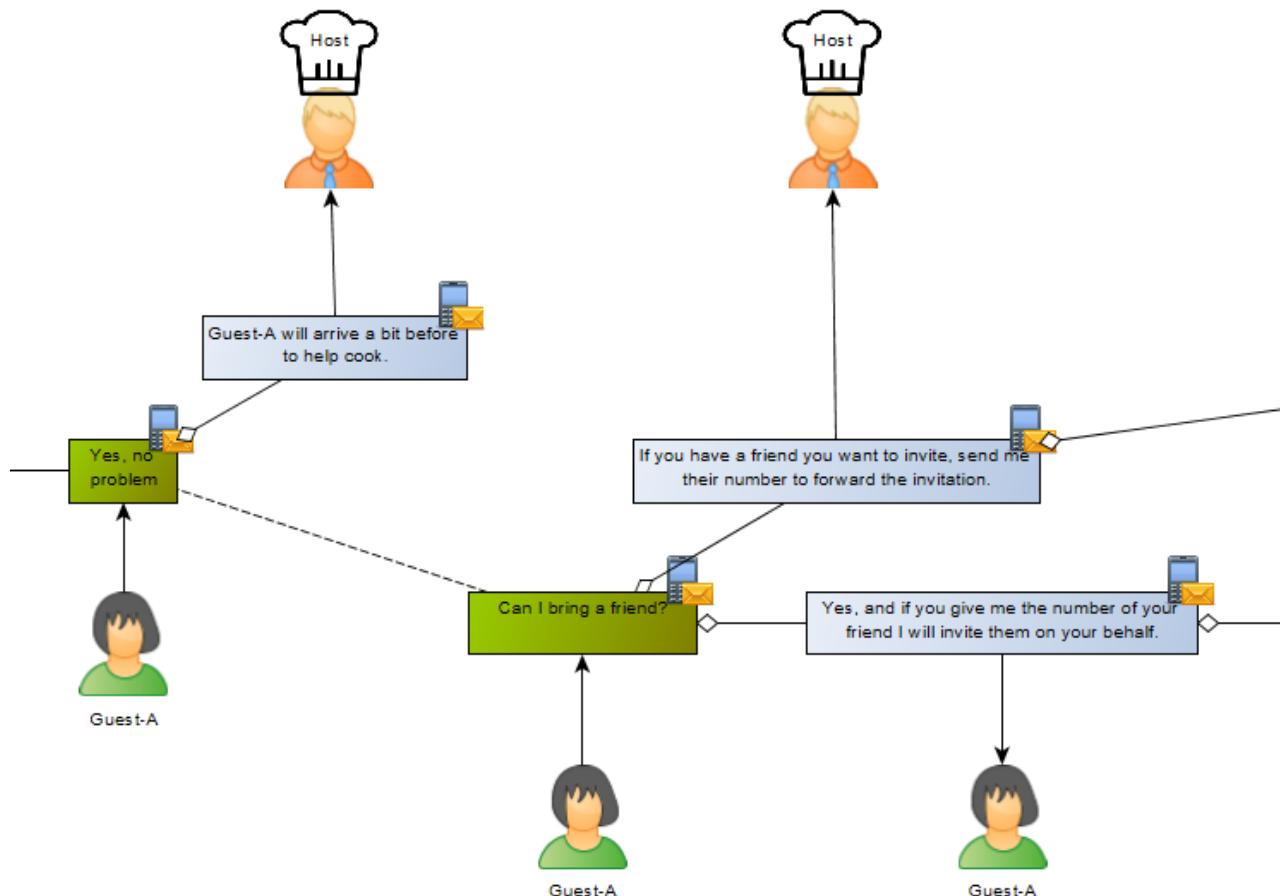


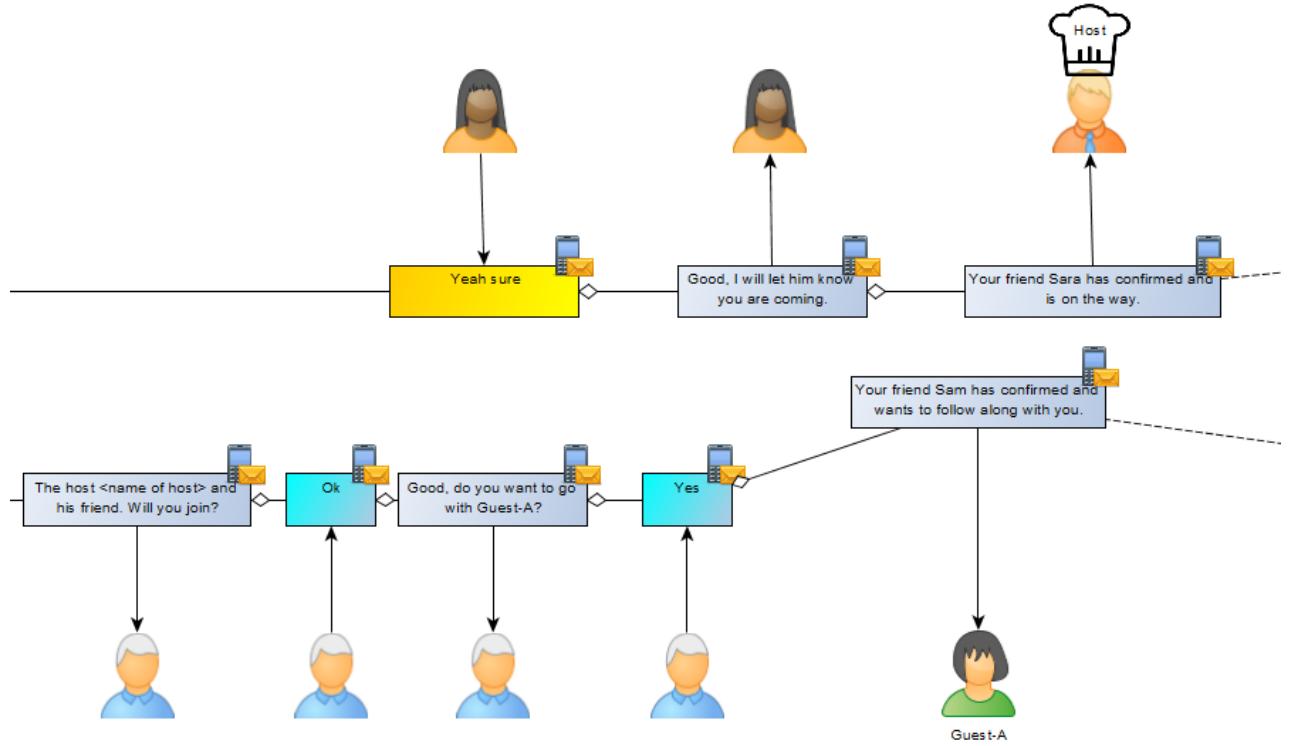
(a) Journey map 5:



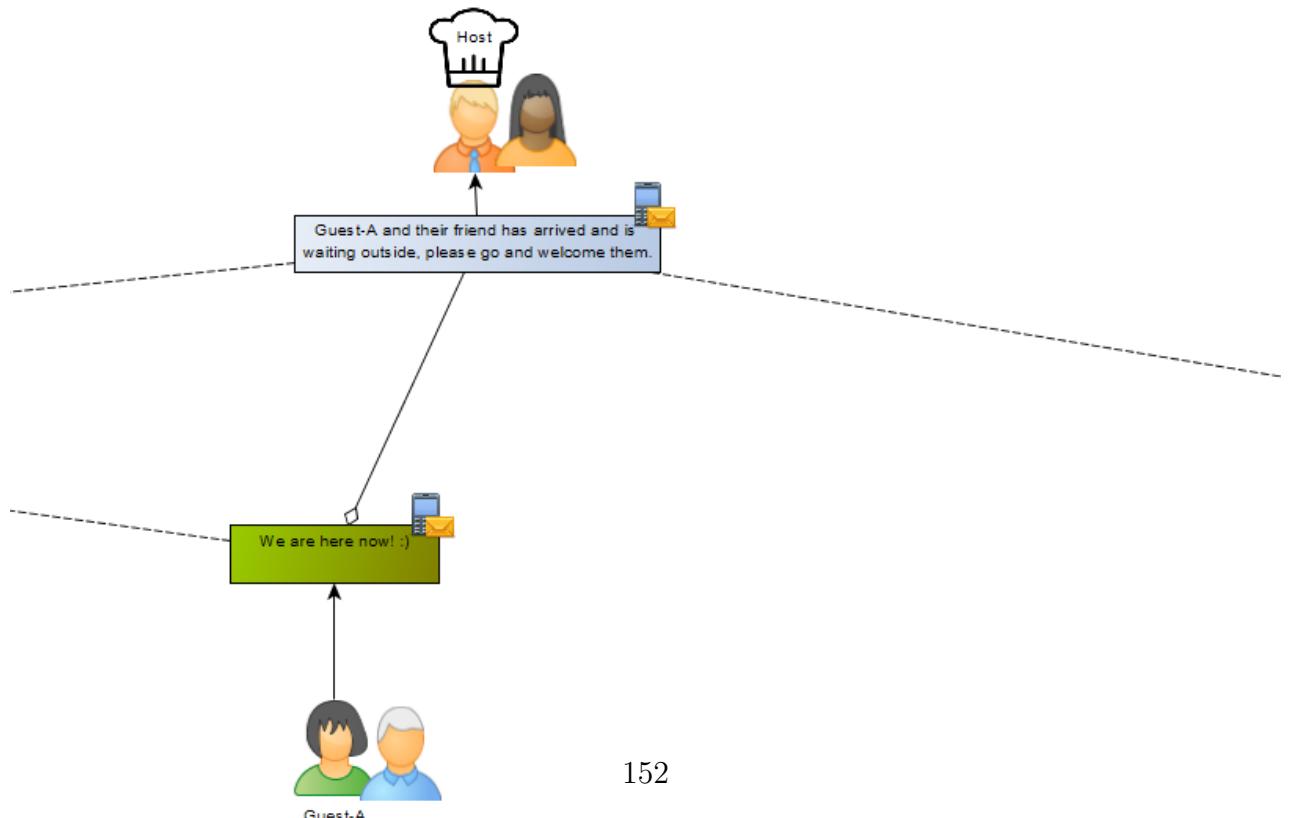
(b) Journey map 6:

Figure B-16

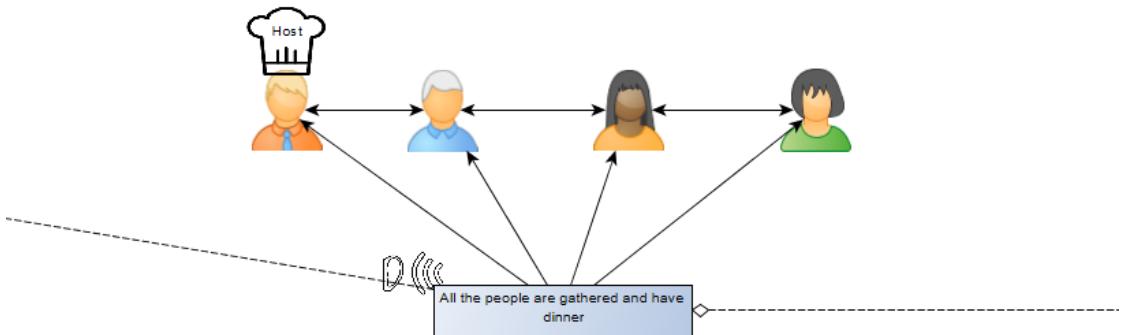




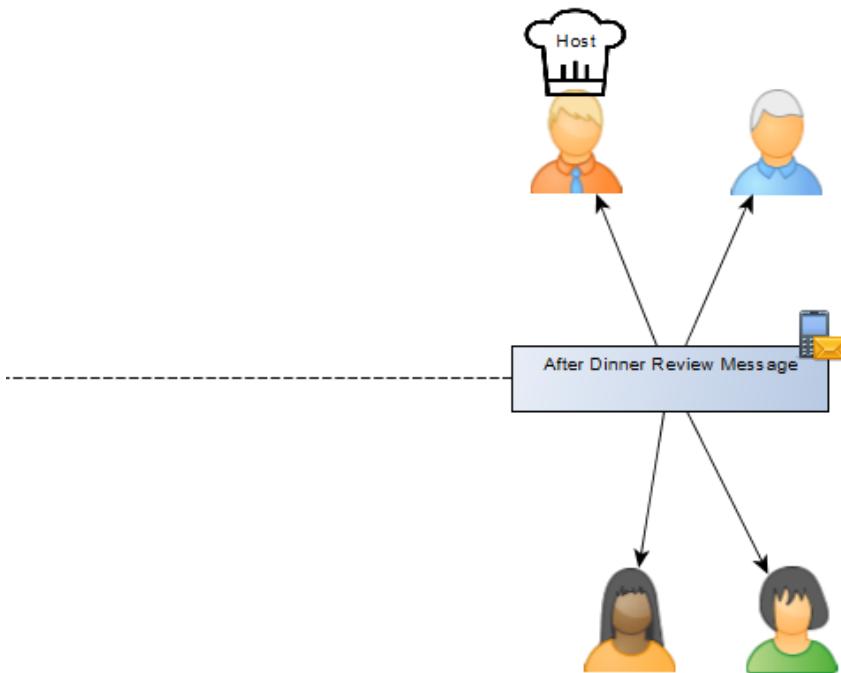
(a) Journey map 9:



(b) Journey map 10:



(a) Journey map 11:



(b) Journey map 12:

Appendix C

Phase 3

C.1 Transcription conventions

A subset of the transcription conventions for English and other languages as laid out in (Chafe, 1980; Levinson 1983; Atkinson & Heritage 1984; Szatrowski 1993; Szatrowski 2014)

.	falling sentence-final intonation.
?	rising intonation, not necessarily a question (Questions ending in falling intonation end with a '.' not a '?').
,	continuing intonation followed by a slight pause.
→	flat intonation.
↑	slight rise in final intonation when utterance final, or a slight rise on the next syllable when utterance medial.
:	indicates lengthening of the preceding vowel or syllabic nasal.
.h h	.h = in-breath, h = out-breath; multiple 'h's' indicate the length in relation to the length of syllables/mora in the preceding talk, e.g. .hhh indicates a 3-syllables/mora long out-breath.
° °	utterances between the ° ° is said in a quieter voice.
..	utterances between the .. is said in a louder voice.
> <	the talk between the > < is compressed or rushed.
>	the talk after the > begins rushed.
<?>	indecipherable or slightly audible speech is indicated in <>.
(0.7)	length of pause/silence in seconds, (0.7) indicates a pause of 7-tenths of a second.
(.)	micro-pause.
{ }	enclose non-linguistic sounds such as laughter, coughing, etc. Whenever possible the beats and actual sounds of the laughter are transcribed.
{.h} {h}	laughter consisting of an in-breath or out-breath, respectively.
(())	description of gestures, shift in gaze direction, etc.

C.2 Timeline of events and interactions for conversational analysis

The following documents are available:

- Google Spreadsheet - Course of Events <http://bit.ly/HM2014appendix> (Sheet 1)

Appendix D

Phase 4

D.1 Google Forms available

- **Google Form - Dinner Review v.1** In Danish <http://goo.gl/forms/M6PjiHx12i> and English <http://goo.gl/forms/BdAUaAnK1e>
- **Google Form - Dinner Review v.2** Never sent out. Same as v.1 except the 'Brainstorm' section of questions are taken out and put into both the Contest form and the Registration form. In Danish <http://goo.gl/forms/RgBc4aCI3M> and English <http://goo.gl/forms/rvvHwdrG24>
- **Google Form - Contest** <http://goo.gl/forms/2kGUuB1ARj>