

FOODEALIZE

*Milestone 2 activity, part of User Experience (UX)
Research and Design Micromaster by University of
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Needs Finding and Initial Concept

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NEEDS FINDING REPORT

DESCRIPTION OF THE TARGET POPULATION

The system will make it possible the meeting of two types of people: the “providers” and the “requesters”. The providers are the ones who can give and share leftovers on the common platform from where the requesters can get them. Considering also the possibility of these two entities to act as the other one, the target audience can be very broad:

- Age: 16-80
- Level of instruction: any
- Gender: any
- Salary/incomes: probably low for the requesters

Having this big range of selection will make it easier to find testers for the system.

DESCRIPTION OF STUDY PARTICIPANTS

Participant 1

Woman of 25 years old, living in New York. She participates two to four hours a week as a waitress in a soup kitchen with her partner. Sometimes she prefers to bring meals cooked by herself to the kitchen. She thinks that the government don't care enough about the spreading of poverty.

Participant 2

Man of 51 years old, owner of a little grocery store in a little town, open for almost 10 years. He never uses apps on his phone. He knows some guys that sometimes ask for the leftovers at closing time, in the evening.

Participant 3

Man of 61 years old farmer. He started to sell this kind of products because his parents were farmers. He has a good business but when something remains unsold, he feels extremely bad because he thinks about the poor conditions he has suffered when he was a child, and his heart “bleeds” when a product still edible, is thrown in the trash.

Participant 4

Woman of 27 years old. She is a waitress for a catering company. Mostly, she serves meals for ceremonies but also for communities and meetings. Often, she notices that most of the time the orders of food are over exceeding and she always asks herself how can this problem be mitigated

FINDINGS FROM THE STUDY

1. There is not enough connection between the people that volunteer, even if they are living in the same area, often they don't know each other although they act pretty much in the same way. This is read as a waste of resources because «sometimes the best results are given when we are a lot of serving the people, especially in winter».

2. There is no kind of help by local administration to manage the excess of leftovers, all these products are sometimes thrown in the trash without any willing to recycling them in any way.
3. Under economic way, it may be not a great performance in terms of economic optimization because «by lowering the number of leftovers wasted, there would be less trash to carry by the trash company, and so a saving for the community and for the environment»
4. Often, everything a farmer produces is sold, but sometimes it is not, or, in some areas it becomes not convenient even to harvest (good) vegetables from the soil because there are some kind of commercial agreements that implies the allowance to import products from over the border at lower prices, that makes the selling of the local products not affordable.
5. Not every kind of dairy products sellers is willing to just give their leftovers for free.
6. Sometimes there is the will to use the application on the smartphone, in detail one interviewed has tried to install “Food for All” but it was not compatible either with his Galaxy Tab 4 and with his Xperia XZ Premium. With some other applications, there may be the problem that the area (or even the entire nation) is not covered by the service.
7. «There is not a good coordination, nor a fine way to create and manage something like “food giveaway” day».
8. It would be great to know the “reputation” of who gives the food and the same for who “books the food” via app.
9. «Would be great if there is some indication of the ingredient inside a meal, because once, one of my guests had a strong allergic reaction due to the presence of shellfish that was not properly notified».
10. Not always all the expenses of the soup kitchen where I belong to, are entirely covered, so sometimes I have to contribute by myself even in a pure economical way.

IMPLICATIONS OF THE STUDY FOR THE DESIGN

- Thinking about a way of grouping people in the same area, with the same interests.
- Making people who will use the system aware of certain events.
- Making possible for people giving and getting feedback about the “producers” and “consumers” with whose they had contact.
- Trying to involve local governments in the wasted food recycling strategy.
- A way to compensate for the loss of incomes from the selling of goods by farmers would be great, or alternatively giving them the possibility to use a different selling channel where their products can find a way.
- Maximizing the research about what operative systems, versions of operative systems and hardware to cover as much as possible the market, giving particular attention to the low-range products.
- Having some sort of clues about the source and the main ingredients of a meal to avoid problems of food security.
- Find a way to support charity organizations.

DESIGN CONCEPT

PROJECT BRIEF

In a world afflicted by famine, poverty and inefficiencies, half of the total available food [1] is (especially in the western world) wasted due to a thought totally conformed to aesthetic standards before of quality (for what concerns the buyers), and to economic pressures on the market (for what concerns the goods exchange and globalisation). This can lead to catastrophic consequences on the social (scuffles), environmental (land consumption, water shortage) and, in the end, on geopolitical equilibrium.

The main question is: can a software improve the quality and quantity of food consumption in a modern social way?

The system is called “Foodealize”, resembling the union of the words “Food” and “Realize” or “Idealize” (letting the users imaging which fits more to them).

Foodealize is a platform born by taking into account all the issues arisen by the users that are concerned about the lack of long-term vision about food redistribution over the population; in particular, wants to provide its users a useful set of tools that can help them to accomplish their needs of eating (if they act as “consumers”) and their need to share (whether they act as “producers”), keeping always an eye to the possibility to make business.

As this system will run under the form of mobile application, it will give to the users the possibility to get the advantage of the built-in device sensors (like GPS), as well as the connectivity capabilities that pervade our lives in the last decade.

Last but not least, a robust centralized infrastructure will be “behind the scenes” to guarantee a proper service to the users: in fact, a client-server architecture is the only one that can provide the data durability and the coordination of the activities between the application installed on multiple devices.

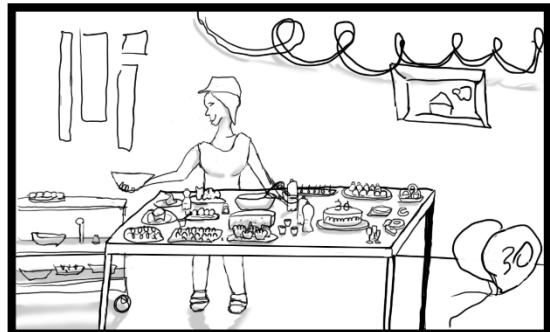
REQUIREMENTS / CONSTRAINTS

- **Infrastructure:** for the best use, a high-quality internet access subscription from his workplace is needed.
- **Moderate technical literacy** is required to get advantage of all the aspects of the app.
- **Subscribing to the service** and accepting some privacy agreement will be unavoidable to use the application.
- **Sharing the current position** could be required (and notified) with some functions.

STORYBOARD



Jane is celebrating her 30th birthday with her friends and office colleagues.



She called a catering company that brought quality food to everyone.



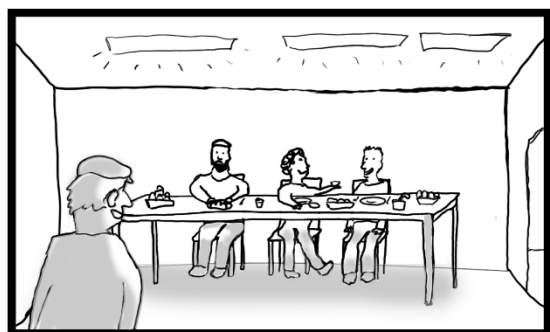
By the end of the party, people are satiated but there are still untouched meals on the table.



Jane feels guilty to throw away all that food, so uses the function "Share a meal" of Foodealize!



The next day, she meets Mike, responsible of the nearest soup kitchen and gives him the leftovers.



Mike can distribute the leftovers to his friend at the soup kitchen, making everyone happy!

PERSONAS AND SCENARIOS

PERSONAS

George



Demographics

Age: 32

Occupation: owner of a fry shop

Location: Los Angeles

Life stage: married with two children, he is paying the rent for his home

Motivators

- **Avoiding losses:** he really wants all of his product to be sold every day.
- **Curiosity about new technologies:** he enjoys using the smartphone and the apps
- **Member of no-profit organizations:** he like the possibility to give a hand to the other using these agencies

Constraints

- **Shortage of time:** he doesn't have much time "to play" with an app to be sure that everything works
- **Not patient:** he doesn't like people that make commitments without fulfilling it
- **Choosy:** he would like to give the priority of his action to the people he knows in advance

Tina



Demographics

Age: 42

Occupation: yoga instructor during the evening

Location: New York

Life stage: single

Motivators

- **Feeling better with herself:** she likes to make good action to the others, this makes her mood better
- **Likes to cook:** she enjoys preparing sweets but unfortunately, she can't eat everything because of her diabetes.
- **Hates waste:** when she sees food be thrown in the bins, she feels her heart bleeding

Constraints

- **Moderate technical literacy**
- **Privacy:** she is very suspicious about privacy issues with the online services
- **Limited range:** since she doesn't have a car she can't move too much to reach a place if it is not absolutely necessary

SCENARIOS

George



George is a 32 years old owner of a fry shop. based in Los Angeles. He is getting a pause with his business consultant discussing how important nowadays is the efficiency aspect when applied to storage of products. One of his colleague, Robert, says that the last year, thousands of pounds of unsold food has turned out to be a great loss and advises George to employ a manager for his company.

Unfortunately, George does not have enough money to have a manager so he decided to rely on information technology. After a couple of weeks, his friend Jessica, owner of a pizzeria in Tucson, tells his about an app called “Foodealize” that can help him to reduce losses. Can it be true? It’s Friday evening and George will close the shop in about one hour. Unfortunately, many hamburgers and chips are left unsold so he decides to rely on Foodealize: on the screen appears the possibility to create a “leftover selling” which automatically suggests an offer of 2\$ for each of the ten hamburgers unsold, so he takes a photo and put it on the platform. After 5 minutes, Mary Smith books two hamburgers, and after two minutes more, James Caves asks for 4 hamburgers. After ten minutes, James Caves comes to the shop and pays George 8\$ for his hamburgers. At the end of the working day, Mary Smith didn’t come so George gives to her profile a “dislike” vote while giving to James a “like” vote. George is satisfied in any case because he earned 8\$ dollars instead of throwing 4 good hamburgers away.

Tina



Tina works as a yoga instructor in the evening. Often, when she walks down the streets of her neighbourhood to go to the gym she finds a lot of homeless begging. Since she is a very sensitive woman, she decides to ask around a way to help them with ease, considering that for her, giving food is always a better choice to give money.

One of her student, Sarah, explains to Tina that there is the possibility to share easily leftovers with an application for mobile devices called “Foodealize”. In the beginning, she was thinking it would be necessary to learn in deep how the application works, but after just 1 minute, she figured out how to use it with ease. It’s the 23rd of December and she is preparing sweets and cakes at home for her friends from the gym when suddenly, her friend Sarah says that she will not come because of the flu, but asks Tina to give her food for someone who really needs it, suggesting to check on “Foodealize” if there is an event in the nearby. Tina checks the oncoming events on the main page, and she comes to know that at 1 mile from home there would be the gathering of the leftovers for the Christmas Eve, the next day. At 8 o’ clock of the Christmas Eve, she wakes up, gets all the sweets remaining from the day before and goes to the square marked on “Foodealize”, bringing there her food. Now Tina is happy with her gesture and feels better with herself.

COMPETITIVE ANALYSIS

SELECTION CRITERIA FOR “COMPETITORS”

- **Same targets** - Competitors that participate in one or more of the current or envisioned target, for example, food for everyone or food for organizations
- **Service strategy similarity** – Apps that offer a similar portfolio of functions and services
- **Comparable business processes** – Apps that appear to have comparable underlying business processes for what concerns programs of “rewarding”
- **Relevant intellectual property** - Competitors who have intellectual property that could be used to limit the market opportunities
- **Interface similarity** - Apps who appear on the surface to have a similar kind of style and interface interaction
- **Participates in relevant partnerships** - Apps who are actively participating in relevant Non-profit Organization Programs

COMPETITIVE MATRIX

Factor	Food4All	YourLocal	Olio
Over request of permissions	Asks 6 types of permission without good reasons		
Introduction to the app functions		x	x
Optimized for tablets	More or less	More or less	
Requires phone number to subscribe	x		
Icon “for vegetarians”	x		
Sharing earnings with volunteer programs	Not clear		
Available in more languages		x	
For food only	x	x	

BEST PRACTICES AND OPPORTUNITIES FOR DIFFERENTIATION.

- The graphical design of the other product is not captivating enough, nor is well thought to run on a bigger screen (such as Galaxy Tab A). So, first of all, a study

regarding the geometric disposition of the element and colour palette should be done. As well as the Foodealize app layout should try to get the maximum benefit from larger screens as well.

- Olio was the only application that contained a lot of resources shared, that's because it embedded an ad hoc community with a storyboard (just like Facebook) that helps people from the same area to connect.
- Food4All is the less transparent application: at the beginning requires the access to the most sensitive phone feature (contacts, messages, phone calls, camera etc) at the beginning without mention how they will be used, moreover there isn't a tutorial for the functions; moreover, it requires a phone number to subscribe (just like WhatsApp) – very uncomfortable. At the opposite, Olio turned out to be very clear about the possibilities with a good starting-point tutorial.
- Olio and YourLocal don't have an icon for vegetarian/vegan or anything like that type of meal, while Food4All has.
- No one has any possibility to share the earnings with an external organization. Food4All has a "food bank" that is not very clear what is about.
- Only Food4All gives the possibility to gain money from the leftovers.

REFERENCES

[1] <https://www.theguardian.com/environment/2013/jan/10/half-world-food-waste>

APPENDIX

NEEDS FINDING STUDY PLAN

HIGH LEVEL GOALS OF THE STUDY

This study will find out how much good is the idea to implement in a unique system all the functionalities that lack in the single similar yet available applications and if the new contrived function to be implemented, can give a further boost for what concerns the linking between social technologies and solving of the food scarcity.

RECRUITING CRITERIA AND STRATEGY

The target criteria are defined in the "Define target audience" section.

The strategy will imply asking a possibility of interviewing to the owners / employees of grocery shops, soup kitchens and catering services.

INTERVIEW PROTOCOL

[Overarching Question]

1) What are the challenges about leftovers recycling?

2) How can it be useful would be to have a complete platform to manage the problem of food wasting?

[Introduction]

Hello, my name is Gabriele, and I'm here to comprehend better how do you face the food consumption, in particular, what is your attitude toward the nowadays food management.

This interview will take about one hour, during which time we'll go through some questions.

Throughout, I'd like you to treat me as if you're describing the situation to some who doesn't know very well this kind of issues. I'm here to learn from you.

Just a short introduction before we start: I'll keep all your comments confidential as much as possible. Me and my research team will use a lot of interviews like this one in a global way so your answers will not be easily traced to you.

If there will be the possibility to quote you in our final report, we will make sure you will not be identified by your name and/or your role. This interview is totally voluntary on your part, so you can stop it whenever you want with any repercussions for you of any kind; moreover, if there is anything you don't want me to take a note about, please let me know, and I can also discard all of my notes about what you have told me so far.

Please feel free to ask anything you want before we proceed. All right, then, let's start.

[Once the interview gets underway...]

Since I don't want to miss anything you say, I'd like to do an audio recording, do you agree? Only me and my research team will be able to access this recording. Thank you.

[Warm up]

How often do you use app for food delivery/redistribution?

In general, are you satisfied in nowadays social network pervading mechanisms?

[Culture of the food in a technology contest]

[core 1]

It could be interesting knowing about your last time on applications like "Food for all", "Olio" or on more commercial application as "JustEat", can you tell me something about that?

1 When was the last time you accessed this application?

2 Do you remember the reason why you logged in?

3 Do you remember if you were searching for a particular product and what it was?

[core 2]

What do you think is the best way to be aware of the new events about food in your area?

1 In case you use Facebook, how effective you think the "events" about food are?

2 How much comfortable do you think would be having a push notification on your device in case of the possibility to have free or low cost food from leftovers in your area?

3 Among the companies and shops you have in your area, do you think that any of them would be active in programming a "give away" event?

[core 3]

What do you think about the food management in the last decade?

1 Have you ever had the necessity to search for the lowest prices at your favourite grocery shop?

2 Do you think that the food waste has increased or decreased in the last year, by your experience? Why?

3 Do you think the balancing between political/geopolitical economics decision (customs, taxes, etc) and the appropriate care about population's needs, is satisfactory in your area?

[core 4]

Let's slightly switch to another issue: how much do you think would be useful in terms of economic growth giving to your local reseller the possibility to sell leftovers?

1 How much powerful do you think would be good in terms of marketing?

2 Would you get some leftovers (even in the late evening) if they were free of charge (or almost) from the closest offerer?

3 How much do you think there is the risk for little grocery shops to be overwhelmed by the big food chains?

[core 5]

What would be the most powerful features you would like in an application specifically born to mix social awareness and food waste management?

1 What kind of recommendation would you like to receive in terms of trustfulness by a food provider about leftovers quality?

2 What are the limits and the consensus in terms of privacy that the users (providers and consumers) should give to such application?

3 How often would you use this application to share leftovers of your dinner/lunch with the people in your neighbourhood, for free or behind payment?

[Conclusion]

Thank you for answering my questions. I have for you. If anything else occurs to you after I leave, please don't hesitate to contact me by email. In the case, I would like to contact you again to ask a few more follow-up questions.

At the end of my research I can send you my results, if you want.

Do you have any other questions?

Thank you again!

SKETCHES OF DISCARDED IDEAS

1. Giving the possibility to share another kind of products: discarded because it will complicate the process of the management of the platform and could make it less “incisive” in terms of marketing.
2. Using also a website with the same functionalities of the application: discarded because of the costs of developing not justified by the fact that everyone has a phone or a tablet, and the use of the application can be prevalent in mobility situations
3. Making the application available only for a certain area: although some of the competitors applied this restriction, the idea of Foodalize is to “not let anyone behind” so it will integrate also a broad support for another language as well as the possibility to share food in each part of the world.
4. Be completely ads-free: although it would be effective under image benefit circumstances, having a small non-invasive banner at the bottom of the screen could help the app to improve thanks to the work of the developers and to maintain the infrastructure functional.
5. Being semi-anonymous: not requiring a login, it would make to app even easier to run and be adopted by the mass, but in the end, it is always better to keep track of the user to make possible the system of the “reputation”: if a “sharer” has not a good reputation (because it lies of quantities or on quality) must be known by the other users. In the same way, if a “consumer” requires product but they don’t get it, can be identified as “not so reliable”.