

# CROWGLE

IT'S KIND OF A BIG DEAL

## Generative Phase Report

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## EXECUTIVE SUMMARY

In the generative phase, we took all of our data from the exploratory phase, and worked to develop ideas which addressed the SET Factors and POG that we previously had established. Through brainstorming, creating value models and value opportunity tables, and debate among our team, we came to a decision about a service that we want to design: this service is called Crowgle.

Crowgle is an innovative way for merchants to sell their products. It is a mobile application that revolutionizes how commercial transaction happens. Customers want to get a good deal for everything they buy, and merchants want to sell everything collectively for the best price possible. Crowgle is the solution that addresses these issues.

Our proposed service Crowgle creates an auction that allows customers to purchase products or services at the prices they desire, with the knowledge that the price of the offer can be increased or decreased at the discretion of the merchant. This program deals in a way that builds off of the excitement of gambling for the customers, and helps merchant predict consumers' buying behavior based on the results of these auctions.

## PROCESS

During the exploratory phase, we initially had two hunt statements which we evaluated and consolidated into one:

“We want to research current distribution and redemption of coupons in order to design a context-aware mobile service that creates a new coupon experience for both merchants and their customers.”

From this we were able to set our research focus. We wanted to explore the experience of using or distributing coupons from both merchants’ and customers’ perspectives. We also wanted to explore social, timing, location, and other factors which affect how coupons are used.

Our user research was conducted in the form of field interviews. We went to both local shops near CMU and the Waterfront shopping district where we did short interviews on customers and merchants. From the findings in the field along with the feedback from our classmates, we gradually narrowed down our focus to local merchants. In our next two phases of user research, we spoke to local merchants who owned restaurants or other stores in the food industry, and also additional customers to get their feedback on our latest ideas. We were able to find more breakdowns and patterns in our later two stages of user research, which were combined with our findings from the first stage.

After all the user research was done, we moved into the Generative Phase. We took the findings from the user research and brainstormed ideas for our service. The ideas were consolidated into three possible service options (see next page). Thorough analysis was done on each service option, during which we evaluated the value and transactional flow. We then compared the three and chose one that we felt had the best potential.

## CONCEPT 1: FOTO-DEALS

### Description

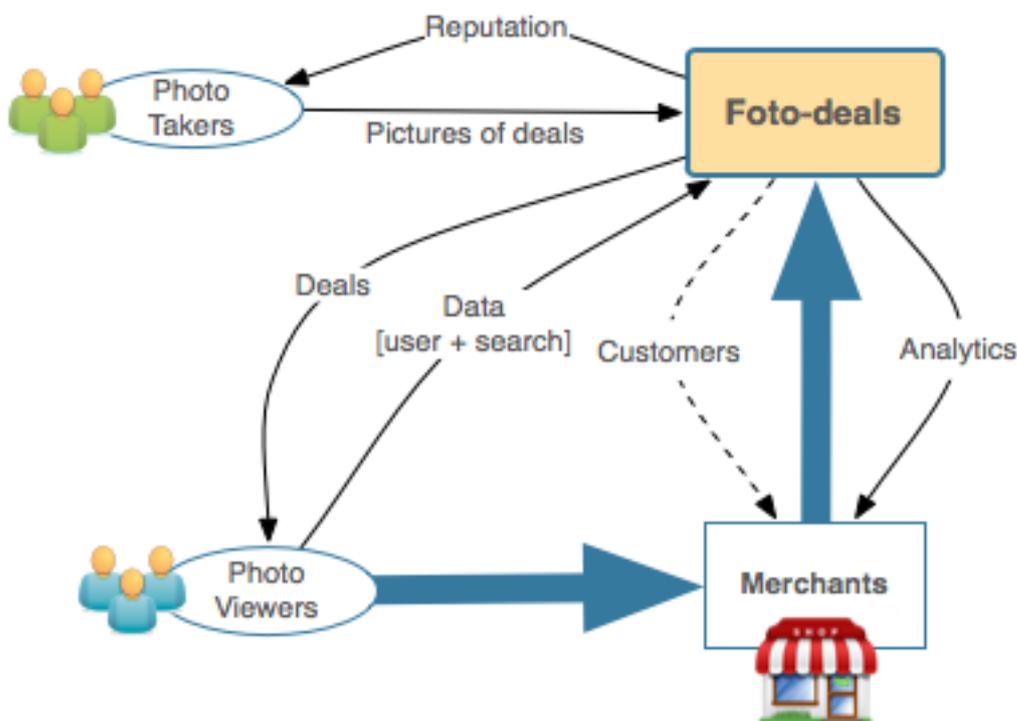
Foto-Deals is a mobile service that enables a crowd-sourcing approach to discover deals or discounts offered by merchants. Through the application, users can take pictures of deals, for example deals that are written on a blackboard placed in front of a store window or a poster taped up inside a store window. The users can then upload this picture to our system to share it with other users, where it will be automatically tagged with the location and will prompt the photographer for some general information.

When viewing deal photos on the service, users can predefine the categories they are interested in and/or follow a particularly active contributor. They also have the

freedom to either actively browse through all the deal photos or have the system notify them according to their preferences and location.

Our service aims to construct a user-centered crowd-sourcing environment centered on the sharing of "deal photos". The record of the photos taken and the transactions made successful by the photo are all tracked by the system. This data is useful for shop owners to identify target consumers and evaluate the effectiveness of the different types of deals they provide. In order to use the service, the users have to agree to terms of their usage information being sold to the merchants, and user data are available for store owners to purchase.

### Value Diagram



## Assessment

Foto-Deals is based upon the latest trending topic of “crowd-sourcing”. With the advent of blogs and twitter, more people have taken control over the information presented through the Internet. Recently this has seen a marked growth with photo sharing websites like “Instagram”, “picplz” and location sharing websites like “Foursquare”, “Gowalla”. Foto-Deals work on similar concept with the users sharing information about coupons and deals with other users in the community. The success of such websites stands as a forerunner for this novel concept of having customers market the deals for the merchants. Furthermore, providing the deals as photos of specific product provides the user with a visual indication of what the deal gives them, which will help build more emotions towards the product when compared to normal text deals.

Security is less of a concern here as the users are not exposing any private content. This exposes the deals to a wider audience since photos are available to the entire community. As seen with programs like Instagram, we believe there is the potential for Foto-Deals to develop a viral quality. The merchants get to see the needs in the market and are able to evaluate the success of deals, but only if they pay for the analytics provided by our service. The data collected from the users will help the system to stratify the demographics of the customers, which can be used for targeted ads at a later point of time.

Like any service using crowd-sourcing, Foto-Deals can face the

problems of vandalism and unwanted content. Checking all uploads by the users and implementing stronger moral policing will be hard as the content is not directly supplied by the merchants. Furthermore, the revenue for our system comes only when the merchants decide to pay for analytics to better understand their customer base. Charging the users to use the application or to post a deal or rewarding them for the deals they posted will bring down the intrinsic value of Foto-Deals. Therefore, if the merchants are not willing to pay for featured ads or analytics, the service won't be able to sustain itself for long. The model of charging the merchants for featured ads closely follows the Google ads model. Google had a deep penetration into the web before starting its Ads program, and unless our service has a critical mass, we won't be able to successfully sell the analytics to customers.

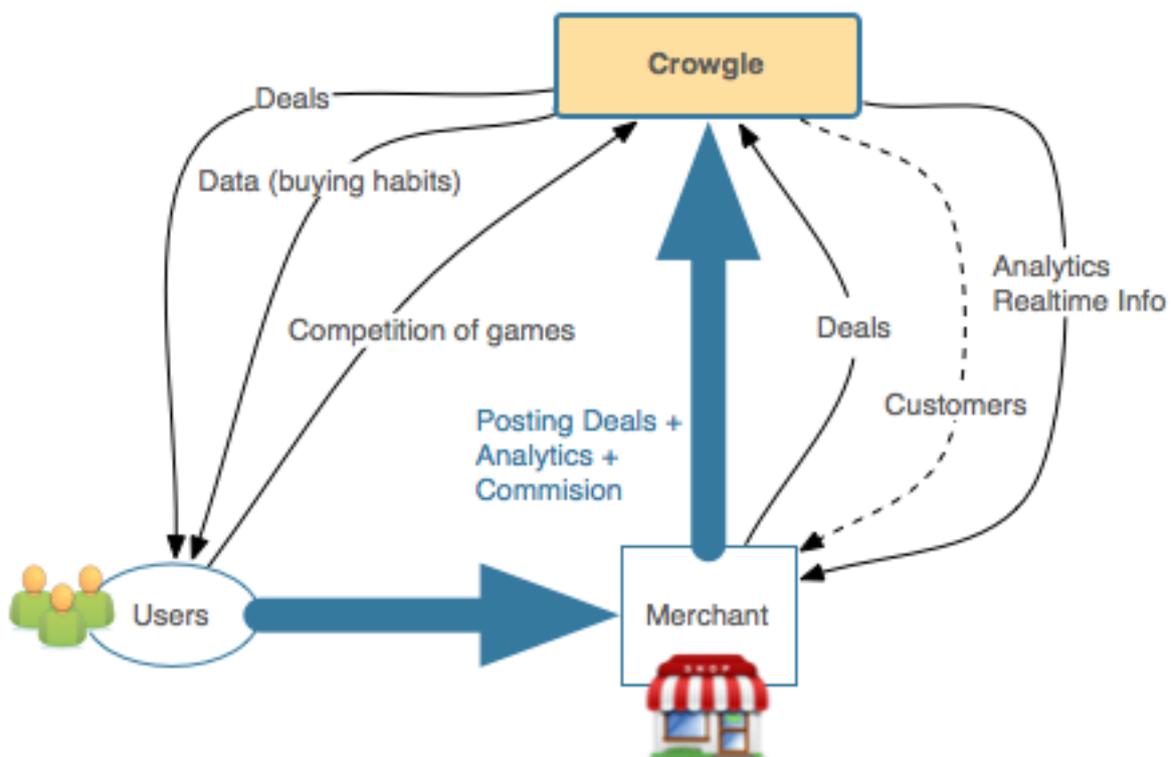
## CONCEPT 2: CROWGLE

### Description

Crowgle (crowd-haggling) is a mobile service that allows merchants to post deals for their products and services and then adjust the price of the offer based on the customer response. Customers will use Crowgle to browse a list of offers from merchants nearby or according to the product categories. When customers see an offer that they are interested in they can choose to watch it, and will be notified if the price of the product or service goes up or down. At any time, a customer can choose to claim an available deal, meaning they purchase the item and can use the app to redeem the product or service.

Crowgle allows merchants to monitor the customer response to their offers in real time and adjust their prices accordingly. The customer data obtained from using Crowgle can be used to determine the best price point to a certain product or service, to help the merchant maximize the number of people who buy it. By subscribing to the Crowgle service, merchants will be able to post their offers to the “Crowglers” and will have access to insightful analytics about their customers.

### Value Diagram



## Assessment

Crowd-haggling is built on the concept of offering gambling to potential users, a strategy used by many successful websites that survived the dot com bubble including Ebay, one of the best known sites that auctions almost anything. The initial concept for this service came from the idea that food items and other perishable goods need to be sold by the end of the day, or get thrown out by the merchant. From our user research, we found examples where merchants who kept goods (such as bagels) from the previous day would sell them at a 50% discount. We feel that this system would address these needs (and attempted solutions) by offering real-time updates on prices that would attract customers to buy the remaining goods before the store closed.

However, we don't see this as a service just for perishable items, but a service that can incorporate general discounts for any item. Crowgle will provide a nice adventure for the users to "watch" the state of the deals before buying it. Over a period of time, the users will be able to judge the merchants' behavior in changing the deals, and hence have the potential to "beat the system," such as a stock broker who is trying to identify the best times to buy or sell shares in a particular company.

The merchants will gain more insights on their particular product and market, and will be able to sell all the perishable items by the end of the day, or to find the ideal price to sell off all of their goods. Hence, the merchants should have the tools to realize a

profit, which would encourage them to continue to use the service.

The service has a greater potential to make more revenue than other service options. We will make money when the merchants pay a flat rate to post up a deal, and by taking a commission from the total amount a merchant gets from a successful auction.

The virality of the service is a bit questionable since customers would not want other potential customers to know about the deal, because the merchant may decrease the level of the discount based on a high level of interest from customers. Also, gambling can be an instant addiction to users, but whether a sustainable model can be built on this thrill is up for debate. Though airlines use similar models to price their flights, in many industries (such as food), there are even more consumer options and competition may be even higher than in the airline industry. At the end of the day, merchants want to please their customers and create a positive experience around their product or service. While merchants will want to play the game in order to create the highest profit, they do not want to discourage or anger their customers with fluctuating deals and prices.

## CONCEPT 3: TWEAPON

### Description

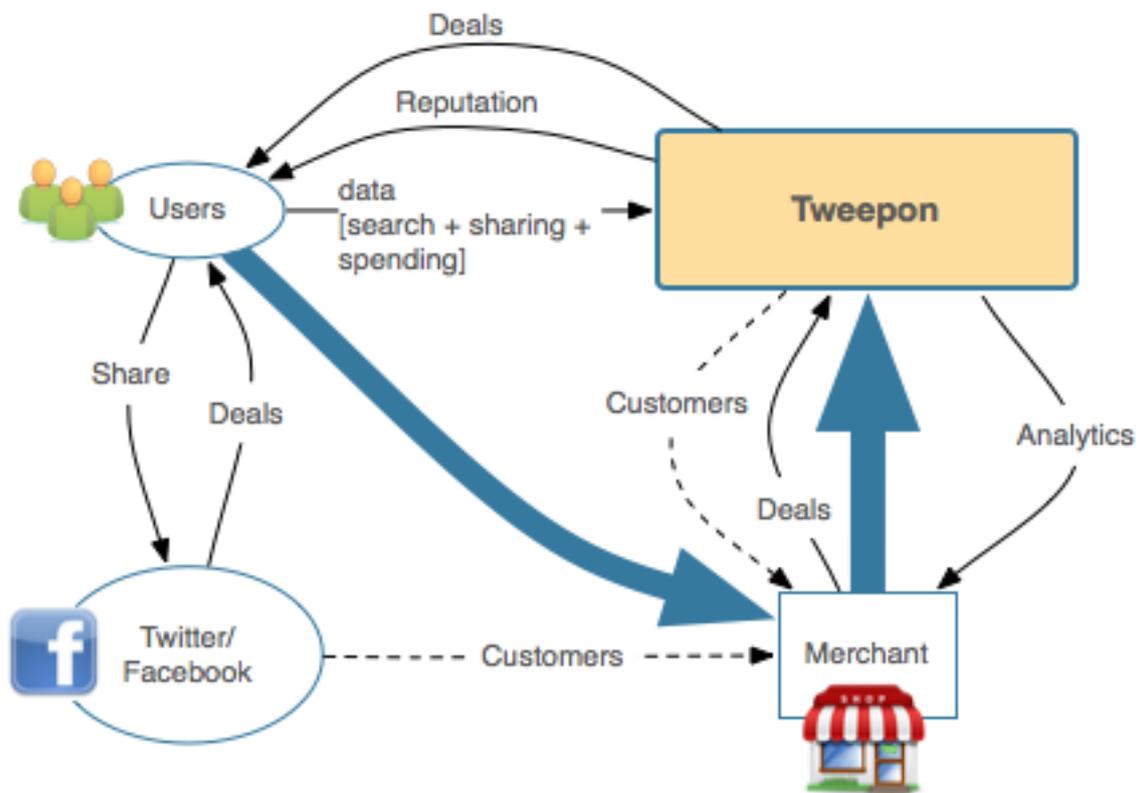
Tweapon is a service for delivering coupons through Twitter. Customers will be able to follow merchants who post deals, and will also have the ability to re-post the deals. This will allow them to view deals that are distributed by merchants that they are interested in or by their friends. The approach is will work best when customers are waiting for the right time to buy something that might interest them or make use of deals that are amazing.

An additional incentive is that customers can also look up coupons in a specific category like “clothing” in nearby shops using their location information. This allows users to specifically look up stuff they want to buy in real-time without getting bombarded by items which are nowhere near their current location.

From a customer’s perspective, there is the flexibility to keep track of deals that he/she wants to know. Also, any deal that is posted can be tracked back to the merchant for validation purposes, so there are no worries about counterfeit coupons getting floated around to the merchant. The

merchants will take comfort in the knowledge that their ads are being distributed in the most effective way to their most relevant costumers.

## Value Diagram



## Assessment

Twitter has currently been a medium of sharing short messages that include personal updates, news, shared links to images, video, or music, etc. We noticed in our research that people who use coupons typically try to keep track of their coupons, and that word-of-mouth, particularly from a friend, is usually a trusted source to get coupons. Tweepon makes use of this trust and also removes the need to use paper by sharing coupons via tweets, but in a different portal specifically dedicated for sharing coupons. The coupons will be posted by merchants which can also be re-posted by the customers.

The merchant pays for the analytics reports that they will receive and also to specifically target their ads to a specific groups of users based

on profile data. On the downside, a large user base would be needed to make the analytics valuable enough to be able to sell to merchants. Security is not an issue, as the coupon can always be tracked back to the merchant who posted it. We believe there is a good chance that this service will have the potential to become viral, but the trigger needed to cause that extreme virality will be a large user base.

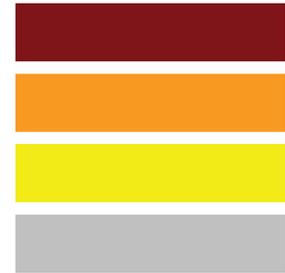
# VOA TABLE

High

Medium

Low

N/A



|                 |                | Crowd-Haggling |          | Tweepon  |          | Foto-Deals |          |
|-----------------|----------------|----------------|----------|----------|----------|------------|----------|
|                 |                | Customer       | Merchant | Customer | Merchant | Customer   | Merchant |
| Emotion         | Adventure      | High           | Medium   | Low      | Low      | Medium     | High     |
|                 | Independence   | High           | High     | Medium   | Medium   | N/A        | N/A      |
|                 | Security       | Low            | Medium   | High     | High     | Medium     | Low      |
|                 | Sensuality     | High           | High     | N/A      | N/A      | N/A        | N/A      |
|                 | Confidence     | High           | Medium   | Medium   | High     | Low        | Low      |
|                 | Power          | Medium         | Medium   | Low      | High     | High       | Low      |
| Ergonomics      | Comfort        | N/A            | N/A      | N/A      | N/A      | N/A        | N/A      |
|                 | Safety         | N/A            | N/A      | N/A      | N/A      | N/A        | N/A      |
|                 | Ease Of Use    | Medium         | Low      | High     | Medium   | Medium     | High     |
| Identity        | Timeliness     | High           | High     | Medium   | Medium   | Low        | Low      |
|                 | Sense of Place | Medium         | Medium   | Low      | High     | High       | Low      |
|                 | Personality    | High           | High     | Low      | Medium   | Medium     | Low      |
| Impact          | Social         | High           | High     | Low      | Low      | Medium     | Medium   |
|                 | Environmental  | N/A            | Low      | High     | High     | Medium     | Medium   |
| Core Technology | Reliable       | Low            | Low      | High     | High     | Medium     | Medium   |
|                 | Enabling       | High           | High     | High     | High     | High       | High     |
| Virility        | Transmissible  | High           | High     | Low      | Low      | Medium     | Medium   |
|                 | Evangelical    | Low            | High     | High     | Medium   | Medium     | N/A      |
|                 | Sustained      | Medium         | Low      | Low      | Medium   | High       | High     |

For the Value Opportunity Assessment (VOA) Table we felt that the easiest way to approach the task of filling it out was to move away from a score based system for each of the criteria. For each piece of criteria, we would rank which service we felt best addressed the issue, considering both the customers' and merchants' perspectives separately, from 1st to 3rd (we did allow for ties of rank in some cases, and if we felt that the service didn't address the piece of criteria at all, it was given a "N/A" ranking). We then mapped each ranking to a particular color: 1st = high score = red, 2nd = medium score = orange, 3rd = low score = yellow, N/A = no score = gray. After filling out the map, we were able to judge which service performed the best according to the criteria based on which service had the most red table cells. This table gave us additional evidence to judge which service would perform the best.

## DECISION

After looking through the VOA table following by a long discussion, our team decided to choose Crowgle as our service model. Some insights from the analysis that led to this decision are:

- It easily captures the emotions of the users more than the other models and thus offers a more sustainable model. This was made possible by injecting that excitement in the process to the customers.
- From our previous competitive analysis, we didn't see any existing service that uses similar model. Thus, it's a fresh idea with no direct competition.
- Considering both customers' and merchants' perspectives, our service provides a win-win situation where customers are able to wait and get their desired deals and merchants can make more strategic sales.

## CUSTOMER PERSONA



### **Sarah Rodriguez**

*"The money saver"*

Location: Pittsburgh, PA

Age: 20

Studying Civil Engineering at CMU

Single, never been married, no kids

### **Background**

Sarah is originally from New York, NY, and she came to CMU to study Civil Engineering. She had never been to Pittsburgh, PA before coming to CMU for her Freshmen orientation. As a typical college student, Sarah has a clear interest in trying to save money on everything, particularly when it comes to eating. She is also a big fan of her iPhone, using many different applications to connect with friends, organize her schedule, and to shop.

### **End Goals**

Sarah wants to be able to save money when she goes to stores, whether it is to eat, or to shop, and she would like an application that can help her identify products or services which she would be interested in obtaining.

### **Experience Goals**

Sarah wants to be able to easily access information about various coupons and discounts, and doesn't want to have to do extensive research or put in a lot of effort to get these discounts. She also wants to have the deals that she is interested in managed well, so she doesn't end up missing out on deals that she really cares about.

### **Life Goals**

As a college student, Sarah doesn't have much money to spend, and needs to use it wisely, so she would like to take advantage of as many discounts as possible. But at the same time, she wants good value for her money, so she can get quality products and services as opposed to only getting cheap stuff.

## MERCHANT PERSONA



### Irene Wong

*"The customer seeker"*

Location: Pittsburgh, PA

Age: 30

Owns a Chinese restaurant in the Squirrel Hill neighborhood

Single, never been married, no kids

### Background

Being the first generation Chinese-American born in the US, Irene saw the hard times that her parents experienced running their restaurant. After graduating from college and working for a software company for a couple of years, she decided to help her parents with their business, and eventually took it over from them. She wants to take her business to a new level by attracting a younger crowd through the use of social media, like Facebook, on which she created a page where she shares Chinese culture and happy hour deals for example. She also checks on other sites like Yelp for comments on the restaurant, and is open to testing out new ideas which potentially will help to attract more people to her restaurant.

### End Goals

Despite having a healthy number of customers that regularly eat at the restaurant, Irene really hopes to attract new customers since as she develops plans to expand her business.

### Experience Goals

Irene wants to present her current and potential customers with a cultural experience, where they can enjoy authentic Chinese food. She wants to be able to easily reach out to a young audience and spark their interest in authentic Chinese cuisine through the use of deals and discounts.

### Life Goals

Irene's ultimate vision is to contribute to the effort to promote authentic Chinese cuisine to the American population over the more commonly recognized "American" Chinese food.

## CUSTOMER SCENARIO

Sarah was in a rush this morning and unfortunately did not have time to pack her lunch. She needs to get lunch sometime during her day, but she doesn't want to spend a lot of money, and is convinced that there should be a merchant out there that has a lunch special, but she's not sure who. On her way to a meeting, she opens up her iPhone application and scrolls through some deals at nearby restaurants. She sees that Eat Unique is offering a 10% discount on its soup and salad combo, and that there are only 10 of these offers left. She decides to watch this deal and adds it to her watch queue, even though 10% discount sounds pretty good, she figures the deal may get a little better before all 10 people claim it.

As Sarah's leaving her meeting, she checks her phone and sees that the app has sent her a push notification. There are only 6 soup and salad combo deals left, and the offer has increased the discount to 15% off. She closes the notification as she thinks she can probably get an even better deal if she waits a bit. Sarah walks back to a nearby coffee shop to grab a quick cup of coffee. As she's adding cream and sugar, she gets another push notification that only 3 offers are left and that the deal is now

at 20% off. At this point, Sarah knows that she better claim it. After claiming the offer and paying for it, a coupon appears on her screen and she saves it. She heads off to Eat Unique to redeem her 20% off soup and salad combo deal knowing that she will get a nutritious meal and save money at the same time, a great combination.

## MERCHANT SCENARIO

Irene, the owner of local fine dining restaurant, sees that business is slow as it is still early in the night. She wants to fill some tables to attract more walk in business, and decides to post a deal on Crowgle - buy one entree, get the second 50% off.

Three deals are claimed right away by customers that were nearby and using Crowgle, so Irene is filling up the tables in her restaurant. She then decides to alter the deal - buy two entrees and get a free appetizer - which isn't as good of a deal, but 5 customers claim it within twenty minutes, hoping to get a deal while they still can. There is now a wait for tables, so Irene chooses stop offering new deals at the moment.

Finally, it is getting late in the evening and business at the restaurant has returned back to a lull again. Hoping to attract more customers, Irene offers a 10% off deal, which she sees is being watched by people on Crowgle (via push notifications on their smart phones), but not claimed. She decides to increase the rate of the discount to 20% off. This change causes two people to claim the deal and come in. Eager to fill up her last few open tables and to get rid of her the excess food at the restaurant, she increases

the rate to 40% off and limits it to four customers. Half an hour later, the deals have been claimed and Irene has successfully served the meals and desserts that would have been thrown out at the end of the night.

## CONCLUSION

The analysis done in the generative phase has led us to a service solution that we are confident of. The next step in our process is to work out the details of the service in the Refinement Phase. We will work from our scenarios to solidify the interaction experience for both customers and merchants, and to conduct further research to verify our value models. We will also talk to more people who can become potential users, and look at existing online haggling services for feature ideas.