

The Utrecht Based Service

Location-based services for retailers in Utrecht



 **CROSSMEDIALAB**
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THE UTRECHT BASED SERVICE

BY

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The focus of this research paper is on location-based services in a retail setting. In the theoretical framework shopping behavior and its changes through the rise of the internet and mobile devices are laid out. Implications for retailers are discussed and possible methods of adapting to the new ways of shopping are defined.

After that, location-based services are explained. How they came into being, what examples there are now and the factors that make current location-based services successful. The success of location-based services from a user perspective are explained by means of the TAM and UTAUT model, before moving on to and what elements could be of importance when location-based services are used in the retail environment. This is explained by means of the STOF method.

After the first chapter, the theoretical framework, we move on to the research questions in regards to the benefits of location-based services in a retail setting, the main research question being:

“What type of location-based service can draw consumers into stores in the Utrecht city center and create value for both the consumer and the retailer?”

By means of workshops, interviews, a case study of a particular street in the Utrecht city center and a questionnaire concerning user preferences this question is answered.

Conclusions include the fact that location-based services are not very popular yet, but in time could have added benefit to retailers' overall marketing strategy.

A successful location-based service should have up to date, relevant information regarding all the stores in the center, their product lines and deals on offer/discounts. The information should be Dutch and should be easily and quickly accessible. By checking in to stores users can collect points which they can exchange for deals by the retailers. These elements should be integrated into an existing service, such as Dutch LBS *Feestje*, rather than setting up a new one. A focus should be on venues that serve food and drinks to start with, as these type of locations are checked into the most at the moment. Users should have the ability to opt in and opt out of using the service. The service should be financed by the retailers and through advertising.

Further research should include a widening of the research parameter, and tests regarding the success of putting deals on LBS platforms.

Preface & Acknowledgements.....	8
Introduction.....	9
Glossary.....	10
1. Theoretical Framework.....	12
1.1 Decline of shopping in city centers and its consequences for retailers.....	12
1.2 Rise of Mobile.....	14
1.2.1 The smartphone.....	14
1.2.2 Mobile use consumers.....	15
1.2.3 Mobile Marketing.....	16
1.3 Location-based services.....	16
1.3.1 Definition LBS.....	16
1.3.2 History and technology of location-based services.....	17
1.3.3 Categories of location-based services.....	18
1.3.4 Social media	20
1.4 Existing location-based services.....	21
1.4.1 Informative.....	21
1.4.2 Social.....	21
1.4.3 Retail specific.....	23
1.5 STOF Business Model.....	24
1.5.1 Service Domain.....	25
1.5.2 Technological Domain.....	26
1.5.3 Organizational Domain.....	27
1.5.4 Financial Domain.....	27
1.6 TAM & UTAUT.....	28
2. Research questions.....	31
2.1 Overall research problem.....	31
2.2 Primary and secondary aims/objectives of the research.....	31
3. Research methodology.....	33
3.1 Literature research.....	33
3.2 Interviews.....	33
3.3 Utrecht and the Lijnmarkt.....	35
3.4 Workshops LBS theme day.....	37
3.5 Case Study Lijnmarkt.....	39
3.6 Questionnaire.....	44

3.7 Phases.....	46
4. Results & Analysis.....	47
4.1 Interviews.....	47
4.1.1 Interview Dennis van der Vliet of Feest.je.....	47
4.1.2 Interview Maarten Clemens of TomTom Places.....	48
4.2 Workshops.....	48
4.3 Case Study Lijnmarkt.....	49
4.4 Questionnaire.....	51
5. Discussion.....	53
5.1 Research questions.....	53
5.1.1 Location-based service concept.....	55
5.2 Reflection on the implication for the theoretical framework.....	55
5.3 Reflection on improvements for the study.....	56
5.4 Suggestions for further research.....	56
6. References.....	57
7. Appendix.....	62

List of tables

Table 1. Physical shopping versus new shopping based on Molenaar (2009)	14
Table 2. Informational LBS based on Virrantaus et al (2001)	20
Table 3. Functional LBS based on Virrantaus et al (2001)	20
Table 4. Location-aware services based on Virrantaus et al (2001)	20
Table 5. Full list of locations on the Lijnmarkt	38
Table 6. Workshop design	39
Table 7. Planning research	47

List of figures/illustrations

Image 1. LBS as an intersection of technologies (based on Brimicombe; as cited in Steineger, Neun and Edwardes, 2006)	19
Image 2. The basic components of an LBS: User, Communication Network, Positioning, Service Provider and Content Provider (based on Steineger, Neun and Edwardes, 2006).	19
Image 3. Screenshot of the Foursquare homepage	22
Image 4. Screenshot of the Feest.je homepage	23
Image 5. Screenshot of the Feest.je app on an iPhone	24
Image 6. Screenshot of a deal on the Feest.je platform	24
Image 7. Screenshot of the Shopkick app, taken from their website.	27
Image 8. The STOF model by Bouwman et al. (2008)	26

Image 9. Two-sided business model	29
Image 10. Enhanced technology acceptance model (TAM2) based on Venkatesh & Davies as cited by Kaasinen (2005)	29
Image 11. The UTAUT (Unified Theory of Acceptance and Use of Technology) based on Venkatesh et al. (2003)	30
Image 12. Conceptual framework of mobile marketing in the retail environment based on Shankar et al (2001)	31
Image 13. Screenshot of the Lijnmarkt as featured on <i>Google Maps</i>	36
Image 14. Screenshot of the Tap and Count LE application after its use on 07-05-2011	44
Image 15. Counting people in the Lijnmarkt	45
Image 16. Example of one of the mock ups produced during the workshops	50
Graph 1. Total checkins at venue <i>Bond & Smolders</i> 07-04-2011 until 18-05-2011 on <i>Foursquare</i>	41
Graph 2. Total checkins at venue <i>Scotch & Soda</i> 11-04-2011 until 17-04-2011 on <i>Foursquare</i>	52
Graph 3. Percentage of perceived benefits from the service	53
Graph 4. Attractiveness described LBS	54
Graph 5. User preferences for described LBS	54

Preface & Acknowledgements

In 2010 project 'center entrepreneurs' was created for entrepreneurs in the city centers of Enschede and Utrecht in the Netherlands. The goal of this project is:

"To develop new crossmedial concepts together with both the individual- as grouped-center entrepreneur that offer value in independent entrepreneurship" (Huibers & Van Vliet, 2010, translated from Dutch).

As a part of this project, a graduation assignment called 'Location-based services (LBS) for retailers in the heart of the city of Utrecht' (Van Vliet & Winkel 2010) was created at the Crossmedialab in the University of Applied Sciences. The goal of this graduation assignment was to figure out whether location-based services could be used as a tool to integrate off- and on-line shopping in the Utrecht city center. This research paper is the result of that graduation assignment.

I asked the research group to let me take on this graduation assignment because the topic suited me down to the ground. About three years ago I opened my *Twitter* account, last year I got my first smartphone with 3G capabilities, and I have been busy battling other *Foursquare* users for mayorships for months. Since social media first started playing a part in my life I have been busy spamming the world about my undoubtedly semi-interesting life. I have only been living in Utrecht for a few years, but I have been coming here all my life and love the city with all my heart. Figuring out a way to use a cross-medial, location-based approach to help out retailers in this city seemed just like my kind of challenge.

In this report use was made of earlier written assignments for the International Communication & Media course i.e. the 'Applied Research' report and the 'ICM & Me report', both written by me.

I would like to thank a few people for helping me complete this research. The first are all the people of the research group at the Crossmedia lab; Kees Winkel, Matthijs Rotte, Rogier Brussee, Harry van Vliet and Erik Hekman in particular. Without their constant guidance, assistance and insights I would have never been able to complete this research. Furthermore I would like to thank my university supervisor Peter de Groot, who was never afraid to tell me to take a step back and reassess when I needed it.

I would also like to thank the participants in my research. First and foremost Dennis van der Vliet of *Feestje*, who besides being interviewed by me also took a starring role in the execution of my research by acting as a guest speaker and thinking along about the LBS workshops. Maarten Clemens of *Tomtom Places* also deserves a special mention for explaining the ins- and outs of *TomTom Places*.

Finally, a word of thanks goes out to my fellow Crossmedialab graduate students both for thinking along, and for making life so much harder through mutual distractions. You guys rock.

The rise of the Internet has created a problem for retailers in Utrecht. Consumers make their purchases from web stores, or they Google where they can find the product of their desire the cheapest and make a quick trip to the store and back at the peripherals of the city. Also; the large chain stores like *Freerrecord Shop*, *Hema* and the like are increasingly putting their stamp on the city's image, making it hard for the smaller stores to compete. The main reason people venture into the city centre is for social cultural activities, not for shopping (Molenaar, 2009; Reijn, 2011).

Retailers in city centers everywhere are having a harder time drawing customers towards their stores and are having to come up with new paradigms to keep their stores alive. Most stores have set up a website. Usually these sites contain their addresses, their opening hours, and some even feature a small web shop. Most retailers, however, rolled into creating this website without any thorough knowledge of e-commerce and are actually harming themselves by giving away too much information. (Nierop et al, 2011; Van Vliet, 2010)

One missing element between online and offline shopping could be a location-based service (LBS); the ticket to attracting consumers to come back to the city centre, to get them to explore and to shop. The reason LBS could do this, is that it might have the power to break the 'virtual bubble' people are living in (Stalenhoef, 2010) by reintroducing the urban environment using mobile devices. Also, retailers can reach consumers outside of their stores, at a location of the consumer's choosing through their mobile devices.

Location-based services combine the technology of the (mobile) internet with GPS technology. An LBS could offer gifts to (potential) customers under the condition that they visit a predefined location, usually a commercial enterprise. For this reason LBSs could be perfect to integrate online and offline shopping behavior.

This research is important for the research community because location-based services are on the rise, they are still fairly new and a lot has to be learned about them. For instance a major open question in the field is 'How can one apply LBSs to the benefit of the consumer or retailer, should one? Under what conditions?' Implications for the industry could be a deeper understanding of LBSs, specifically how once can use them as a new channel for marketing purposes and how one can apply this new form of technology to the retail sector (of Utrecht). The impact of this research on society could be to create the basis of a new service that provides consumers and retailers with a new way to interact, and a new set of reasons to venture into the city centre. Benefit to retailers, in the long run, would be a possible increase in sales and consumer traffic. Direct benefit to consumers could be entertainment value, tailored marketing and special offers from retailers.

My aim for this research is to find an answer to the question:

"How can you integrate online and offline shopping using location-based services on mobile devices in such a way that it benefits retailers and consumers?"

In short, I want to know the critical success factors of a location-based service, specifically when applied to the retail sector in the heart of a city like Utrecht.

This in order to create my own concept of an LBS to improve online and offline integration of shopping behavior in Utrecht.

I believe the research questions below are the four key areas of the research:

1. What is a location-based service (LBS)?
2. How are online and offline shopping related? (facts, figures, business models)?
3. Is there a (current) market for an LBS in Utrecht, and can it attract new customers in store?
4. What can be the added value of LBS for consumers and retailers?

(as defined by Wiktionary.org, 2011 or MMAglobal.com, 2011)

1G

Initialism of first generation wireless, (retronym) Analog cell phone network technology.

2G

Retronym referring to standards before 3G. Includes GSM, DMA, TDMA, iDEN, and PDC.

3G

3rd Generation (cellular phone communication standard)

GPS

(cartography) Global Positioning System; A system which enables a mobile receiver to determine its precise location based on signals received from a constellation of US military satellites.

GPRS

(telecommunications) General Packet Radio Service; a packet oriented Mobile Data Service available to users of Global System for Mobile Communications (GSM) and IS-136 mobile phones. It provides data rates from 56 up to 114 kbit/s.

GIS

Geographic Information Systems

GSM

(telecommunications) Global System for Mobile communications

Location-based services (LBS)

A range of services that are provided to mobile subscribers based on the geographical location of their handsets within their cellular network. Handsets have to be equipped with a position-location technology such as GPS to enable the geographical-trigger of service(s) being provided. LBS include driving directions, information about certain resources or destinations within current vicinity, such as restaurants, ATMs, shopping, movie theaters, etc. LBS may also be used to track the movements and locations of people, as is being done via parent/child monitoring services and mobile devices that target the family market. Further definition in chapter 1 section 3.

Mobile Content

Entertainment, sports and news information and games delivered via any wireless media type in a non-advertising format. Location, delivery, and technology of content is irrelevant and can include both on and off deck.

Mobile Marketing

Mobile Marketing is a set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network.

Opt-in

The process where a Subscriber provides explicit consent, after receiving Notice from the Mobile Marketer.

Opt-out

The process through which a Subscriber revokes consent after receiving Notice from the Mobile Marketer. An example of an Opt-out process includes, but is not limited to, a Subscriber replying to an SMS message with the phrase “stop.”

Smartphones

Electronic handheld device that integrates the functionality of a mobile phone, personal digital assistant (PDA) or other information appliance.

SMS

Short Message Service, a service for sending text messages on a cellular telephone system.

Social Networks

A network of personal or business contacts, especially as facilitated by social networking on the Internet.

WAP

A format of mobile web. Relied on WML markup language and special protocols designed for ultra-efficient transmission of content to limited devices over limited connections.

Web 2.0

(Internet) The second generation of the World Wide Web, especially the movement away from static webpages to dynamic and shareable content and social networking.

The paradigm of shopping is changing. Traditionally, basically as long as humans existed, one needed to come out of their house (or cave, depending on how far back you want to go) and head towards a spot where people would exchange goods and services in return for other items of value or money. This dynamic has evolved into the juxtaposition of stores creating shopping areas and malls. In almost every city, if not every, this juxtaposition of stores happened right in the city centers, which has several benefits to both consumers and retailers.

“Managers of shopping centres not only decide who their tenants will be, but also where they will be located. This results in an overall layout that benefits retailers and consumers alike.” (Reimers & Clulow, 2004)

Reimers and Clulow (2004) researched the effects of shopping mall size with actual shopping visits. They defined some benefits to the juxtaposition of stores in shopping malls. This could be applicable to city centers as well, provided the center is fairly concentrated and small, which the Utrecht city center is.

Benefits for consumers include:

- Spatial convenience
- Reduced walking times
- Time saving
- Easier for consumer to compare and evaluate products

Benefits for retailers include:

- Increased likelihood of impulse-buying
- Increased traffic flow which in turn increases store visits

However, consumers tend to come to the city centers mostly for cultural activities, no longer to have a random shopping spree. (Molenaar, 2009; Reijn, 2011)

During the Media Battle (a contest between students to come up with crossmedial solutions to problems presented by retailers in a week) between Saxion University of Applied Sciences and University of Applied Sciences Utrecht in February 2011, retailers from Enschede and Utrecht talked about problems concerning the decrease in consumer traffic and the increase in going out of business sales signs, ruining the street's aesthetics.

Smaller stores are drowning in the current market, one of the reasons being; the city centers are becoming copies of each other, each with the same major chain-stores taking over where smaller stores used to be. Every city center in the Netherlands will most likely feature a *Hema*, *H&M*, *Free Record Shop* and the like. This makes it less interesting for consumers to come back to the centers, as they all look the same. (Molenaar, 2009)

It used to be quite common for people to set up shopping trips, head to the city center and spend a day walking around and scour all the stores until they found exactly what they needed, or wanted. Then the internet made its introduction. People found a way to communicate with each other wherever they were, whenever they were there. Of course this started out with simple internet-connected PC's, but especially in recent years, this connection has become far more mobile.

The increase in web- and mobile purchasing has created a new set of challenges for retailers. Besides simply ordering from web shops, consumers can now bypass the retailer himself and order straight from the manufacturer, if so desired. Computer brand *Dell* is a great example of this.

Commercial exploitation of the internet got started right after its inception and people had the

option to order the items they wanted and have them sent to their houses, all without leaving the comfort of their own homes. Especially in the non-food sector, the popularity of this type of shopping skyrocketed. A relatively unaffected section of retail includes DIY, groceries, shoes and furniture (Burt & Sparks, 2003) yet in the Netherlands alone the percentage of people shopping for products online has reached a stunning 16%, with 6% doing online purchases in the services sector (Thuiswinkel Waarborg, 2011).

“(...) researchers and managers have struggled to fully understand the implications of recent developments in multimedia and multi- channel. For instance, does location still matter in retailing? How rapidly or slowly will consumers adopt new technologies that could eventually result in a shift in deeply-entrenched purchasing preferences? Will the decline of search costs result in sharply lower prices and profit margins? Collectively, what implications do answers to such questions have for retailers’ competitive strategies and their outcomes?” (Shankar & Yadav, 2010)

Besides directly purchasing on the internet, the consumer received a new power through the web; information. It is far easier for consumers to do research about the product they want to purchase beforehand, making the choice to purchase from a different location (for for instance financial reasons) all the more easy. This causes consumers to venture outside the city centers towards shops at the peripherals of the city. Besides that the salesman himself is becoming obsolete, as consumers already know everything there is to know about the product. Research by consumers beforehand also severely decreases the tendency of impulse-buying, which leads in a dramatic decrease in sales. (Nierop et al, 2011)

“Internet is a relatively new medium for retail, it disrupts basic processes in-store, because customers are better informed and know what’s for sale.” (Molenaar, 2009, translated from Dutch)

Molenaar (2009) created a table that compares the physical process of shopping with the ‘new’ way of shopping (translated from Dutch):

Phase	Physical process	New shopping
Orientation	• Talking to friends • Looking at stores • Ads in newspapers • Brochures	• Surfing the internet • Consulting blogs • Discussing on social media such as Hyves
Information	• Commercials on TV and radio • Talking to salesmen	• Newsletters • Referrals on other websites
Purchase decision	• Asking specific questions to salesmen, looking and trying out the product. • Catalogues, brochures and showrooms. • Often in store or near the store. Sometimes an evaluation at home with for instances the brochures at hand.	• Weblogs, specific sites, comparison sites, user experiences. • Product sites and web stores for information. • At home, based on all the information. • At the screen.
Purchase	• In the store based on choice, personal preference and motive for purchasing.	• Often directly at a web store, sometimes at a store of choice depending on personal preference.

Table 1. Physical shopping versus new shopping based on Molenaar (2009)

To make the store an interesting option for consumers, retailers should reconsider how they conduct their business. Molenaar (2009) suggests making the store a 'hedonistic experience', that way luring consumers by the promising them a good time.

Another option could be for retailers to integrate their offline activities with online ones. Either through an online sales-channel, or by using the internet as another means of reaching their target audience.

The project plan for center entrepreneurs define the following possible cross medial strategies:

"Through a cross medial strategy companies are able to reach their customers through multiple channels, this way expanding their reach; both by talking to more customers and in reaching the same customers as a company and product-related multiple times. The use of multiple channels also creates the possibility of better customer service through channel-integration, like online ordering, offline (in the physical store) pick up, or the offline returning of products that were purchased online. This customer service could lead to a higher customer satisfaction, more customer loyalty, higher turnover and a bigger market share. Especially the internet has stimulated cross media strategy because it has become very cost effective to offer services and products via web shops. A cross media approach has positive effects on turnover; consumers who use multiple channels are more active and more satisfied. The Netherlands are one of the frontrunners from a European perspective. (...)

Every channel (online/offline) has its own consumers with their own motivation for using that channel. Some different motivations for using a channel are: financial advantage, product/service variation, ease of use, social status, special occasion, freedom of choice, higher satisfaction, social interaction et cetera. Not only can motivation be different per channel but also the loyalty shown for each channel and the amount of cross-buying that takes place. The latter is dependent on whether something is 'in it' for the consumer and the time it takes (channel adaption duration) to switch channels. New media act at the intersections between channels and guide consumers between them.

Different cross media blogs are used as a platform for heavy debate on the opportunities, possibilities, effects, trends and hypes in these new forms of media. The power of the consumer, the user of new media, is highlighted by this as well. They can influence the direction of development of new media because of this." (Huibers & Van Vliet, 2010, translated from Dutch)

1.2 Rise of Mobile

1.2.1 The smartphone

Phones have been around for decades, and mobile phones are one of the technologies that spread around the world the fastest since its inception. According to an info graphic by Wilson Electronics Inc. (Indvik, 2010), in 2010 there were more than 4.6 billion cellphones in use, with .902 - 1.02 being the rate of the average cellphone per person in the Netherlands.

The ability to connect your phone to the internet is not new either. In early attempts, phones were able to connect to the internet using WAP technology, but this was not very successful due to the low speed and very high cost of use. (Hung, Ku & Chang; as cited in Scharl, Dickinger & Murphy, 2005)

In recent years internet connections via mobile devices has improved to 2G (second generation), 3G (third generation) and soon 4G networks.

"GSM networks can provide data rates up to 9.6 kbit/s, GPRS networks up to 171 kbit/s and 3G systems up to 2 Mbit/s locally and 144 kbit/s overall (ITU, 2002). In practice, the first 3G networks could provide data rates up to 384 kbit/s. The growing network speed has mainly been marketed as an enabler for transferring multimedia content. GPRS enabled the fluent transfer of images and short recorded video clips. 3G networks enable real-time video connections." (Kaasinen, 2005)

The ability to transfer multimedia content was of course desired because mobile devices were technically able to send and receive said content. Enter the smartphone.

The Mobile Marketing Association (2008) define smartphones as:

“A handheld device that integrates mobile phone capabilities with the more common features of a handheld computer or PDA. Smartphones allow users to store information, e-mail, install programs, along with using a mobile phone in one device.”

Research by Morgan Stanley published last year indicates that mobile internet use will exceed desktop internet use by 2015 (Meeker, Devitt & Wu, 2010) so a focus on smartphones is not a bad place to start. Hence, in my research I have decided to focus on location-based services available through smartphones because of the increased use of smartphones in the Netherlands. More on that can be read in the next section; Mobile use consumers.

1.2.2 Mobile use consumers

The increased use of mobile devices has made online shopping for consumers even easier; consumers can whip out their mobile device on the couch, find all the information they need or even make a direct purchase within minutes. As stated in the last section, mobile internet use is expected to exceed desktop internet use within a few years. This will mostly be complimentary, though, not a replacement of desktop use (Ali, Wong & Meeker, 2011). In the Netherlands 24% of households are already using the internet via mobile devices (López-Nicholas, Molina-Castillo & Bouwman, 2008).

Doing everything online, however, also has its disadvantages. For retailers it means more competition or an extra channel they have to maintain. For consumers, it means they cannot try out the things they want to buy, no personal contact with a vendor and they cannot experience the atmosphere of the store (Molenaar, 2009). In a world where life is short and experiences are increasingly valued, this can be a real disadvantage.

The number of smartphones in the Netherlands are growing at a continuous rate, with a current adoption rate of 34% (Telecompaper, 2011). Their widespread use throughout the Netherlands make them a viable platform to try new things with, both from a communication and a media perspective. One of the smartphone applications that could achieve an integration of on- and off-line shopping could be a location-based service.

Perhaps the very fact that people are now so connected to the internet through their mobiles can work in the retailers advantage. What if they could combine the advantages of online shopping with their physical stores? A new paradigm called ‘Clicks and Mortar’ (Katros, 2000; Weltevreden & Boschma, 2008) could be a solution to the decrease in consumer traffic in city centers.

The existence of web shops and how to use them (‘add to basket’, ‘checkout’ ‘delivery method’ ‘ship’) has become fully integrated in modern society. In recent years, however, this method of shopping has become less location-sensitive then ever.

With the rise of smartphones and, in even more recent years, tablets, people have the option to shop wherever they are. They are no longer bound to bricks and mortar stores. Instead they can order their new t-shirt straight from a bus stop, or as is more common, on the couch in front of the TV. A study by Nielsen and Yahoo conducted in 2010 showed that 89% percent of consumers used their mobile internet straight from their home (Ali, Wong & Meeker, 2011). Not all mobile use is constricted to shopping, though. The mobile device can also be seen as another channel of communications. Retailers could reach the consumer wherever they are, provided the consumer has given them permission to do so. Maintaining a new channel of communications is something to thoroughly plan out though, as many factors can influence its success (Zhang et al, 2010).

1.2.3 Mobile Marketing

A new challenge in reaching consumers through their mobile devices is mobile marketing. Scharl, Dickinger and Murphy (2005) define mobile marketing as:

“using a wireless medium to provide consumers with time- and location-sensitive, personalized information that promotes goods, services and ideas, thereby benefiting all stakeholders.”

Obviously, marketing via people's smartphones and tablets could have huge potential. The ability to reach people on a device they deem to be very personal indeed (Shankar et al, 2010) could increase targeting potential a lot.

The problem with mobile marketing, though, is that it is a very sensitive subject. Because people experience their mobile phones to be that personal, they feel marketing of any type can be an intrusion.

As said by Alexander Bard at *The Next Web Conference 2011*:

“Korean seventeen year old schoolgirls ARE the internet. Whatever they do with their mobile devices right now, is what you will be doing in three years time. (...) When you ask one of those girls: ‘Who are you?’ they hold out their phone and say: ‘I am my address book.’”

When using mobile devices to target consumers, even with the best intentions, permission will need to be given by the users or you will fail in your marketing strategy before you even begin. Shankar et al (2010) defined three types of mobile users; the Millennials, the Road Warriors and the Concerned Parents. The Millennials are 10-25 year olds who have grown up in the age of the internet. According to the CBS (Dutch institute of statistics) this group consists of over 3,2 million people in the Netherlands (Centraal Bureau voor de Statistiek, 2011). They are technology savvy, proud of being so, and are skeptical of mobile marketing as they feel it is an intrusion on their privacy. The Road Warriors are professionals who use their mobile devices as a way of making their lives more efficient and streamlined. Their preferences concerning mobile marketing are unclear. Finally, the Concerned Parents, who use their mobile devices mostly to stay in touch with their children. They are also known to use their mobile devices to aid them in shopping.

1.3 Location-based services

Now that the shift in shopping behaviour and the rise of mobile are explained we can move on to the technology that the research is based on; location-based services. In this section I will explain what they are and how they can be applied.

1.3.1 Definition LBS

Virrantaus et al. (2001) define location-based services as:

“LBSs are services accessible with mobile devices through the mobile network and utilizing the ability to make use of the location of the terminals.”

For instance: someone uses their smartphone to check *Google Maps* to find out which way they have to walk to get to the train station based on their current location. In recent years, many people have started looking towards LBSs as a type of technology that could restructure our way of living. Actual, physical locations can be enriched by anyone adding digital data, which in turn can be read by people who pass the same spots. A form of digital graffiti is born. People can use their phones to add tags to categorize their surroundings. They can leave reviews of restaurants, pictures of themselves hugging a tree, or simply tell their friends “I am here now.

Wanna come?”. This data that they leave ‘lying around’ can be read by others who walk past or who are in contact with that specific user from afar. In a way, a digital version of the world, seen through the eyes of those that are at that location, is created that can be pasted over the actual physical world, and can be shared with anyone who is interested.

1.3.2 History and technology of location-based services

The first location-based services were created as an tool for ambulances. When a victim would call the emergency phone number from their mobile phones, they weren't able to trace them at first. It quickly became apparent that this was necessary in order to save peoples lives, so they implemented tracking systems.

“The development of LBSs for mobile terminals got a strong impetus when US Federal Communications Commission (FCC) set the Wireless E911 Rules, initially in September 1999, requiring that it should be possible to locate all of the mobile phones for emergency purposes with the accuracy of about 100 meters in 67 % of the cases.” (Virrantaus et al, 2001)

The first location-based service that actually let consumers use their phones to unlock information about their surroundings was created in Japan by *NTT DOCOMO* in 2001. A combination of cellphone towers and 3G networks pinpointed the mobile device and services were built from there.

Still, GPS was the technology that really set things in motion. Though GPS based location-based service already existed for taxi drivers in Singapore in 1996 (Scharl et al, 2005) it took some time for them to be applied successfully for mobile devices as GPS would only work outdoors (Kaasinen, 2005).

In time, the speed and accuracy of GPS made it ideally suited for location-based services. In-car navigational systems (and increasingly, other mobile devices) everywhere are using GPS to provide navigational data. (Virrantaus et al, 2001). The refinement of GPS and assisted GPS (Van der Vliet, 2011b) have made their way onto most phones.

For instance at *The Next Web conference 2011* there was a pitch by a company for an application called ‘Qubulus’, which makes it possible to pinpoint the location of a smart phone indoors, with an accuracy of up to 3 meters.

Steiniger, Neun and Edwardes (2006) wrote lecture notes on the foundation of location-based services and used two models; the intersection of technologies (Brimicombe as cited in Steiniger, Neun and Edwardes, 2006) and the basic components of location-based services. (see next page)

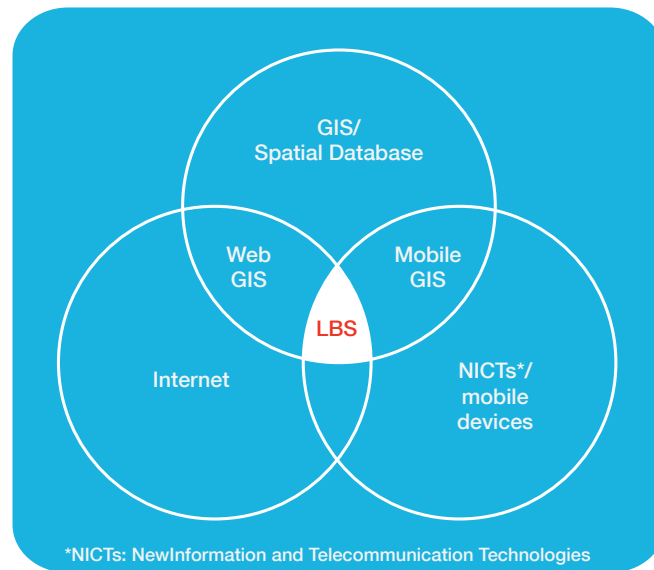


Image 1. LBS as an intersection of technologies (based on Brimicombe; as cited in Steineger, Neun and Edwardes, 2006)

As you can see in image 1, location-based services can be seen as a combination of three elements; the internet, mobile devices and GIS (Geographic Information Systems). When going a little more in depth in looking at the actual services, one arrives at the following image, illustrating how the user and the service/content provider can use two-way communication based on a positioning system locating the user's mobile device;



Image 2. The basic components of an LBS: User, Communication Network, Positioning, Service Provider and Content Provider. (based on Steineger, Neun and Edwardes, 2006)

"(...) the user tells the service provider his actual context like the kind of information he needs, his preferences and his position. This helps the provider of such location services to deliver information tailored to the user needs." (Steineger, Neun and Edwardes, 2006)

Though in-car navigation systems are also considered to be location-based service devices, in this research I decided to focus on location-based services on mobile phones.

1.3.3 Categories of location-based services

Virrantaus et al (2001) made an excellent summary of the different types of location-based services, which I have compiled in the tables below.

Informational LBS	Purpose
Positioning Service	Locating the user/device.
Map Service	Locating the user and providing a digital map showing the location of the user.
City Guide Service	When the digital map showing the location of the user is enriched with points of interest, digital information pertaining to the users surroundings.
Mobile Yellow Pages Service	When the above mentioned service is expanded to include service information and perhaps the ability to contact the venues.

Table 2. Informational LBS based on Virrantaus et al (2001)

Functional LBS (examples)
Ordering a taxi to a specific location.
Location-based fishing permit acquisition
Location-based ticket payment
Emergency and safety services

Table 3. Functional LBS based on Virrantaus et al (2001)

The next table is another step in the location-based service spectrum where ‘pull’ services are turned into push services. As Virrantaus et al (2001) explain themselves:

“Location-aware services are “push” services where the user’s position or proximity to another object triggers some event or defines some condition. One example of location-aware services is location-based marketing, where for example advertisement is send to the terminals approaching the restaurant.”

Location-aware services	Purpose
Finding services	Locating a specific person, object, or pet for instance.
Tracking services	Finding services with a time element added.
Location-based community services	For instance tracking family members, or dating services.

Table 4. Location-aware services based on Virrantaus et al (2001)

1.3.4 Elements of success in the current media landscape

In 2010, Jesse Schell illustrated the huge success of games such as *Mafia Wars* and *Farmville* on Facebook, the *Wii Fit*, *Guitar Hero* and even the Xbox achievement system by outlining two things. First, they all have clever psychological tricks embedded to keep people playing. Secondly he illustrated the fact that part of their appeal is that they all have an element which transcends the virtual; they all have an element which makes it real.

"We're cut off from nature, we couldn't be self sufficient if we wanted to. We live in a bubble of fake bullshit. We have this hunger for anything that's real." (DICE 2010: "Design outside the box" Presentation, 2010)

The same elements returned in Robert Scoble's talk at *The Next Web Conference 2011*, to which he applied the theme 'Human + Reality + Virtual'. Robert Scoble is known for his ability to predict which new applications are going to be a success, and during this keynote he gave us a list of several new applications that all incorporate the above mentioned three elements. Human (social interaction), Reality (physical, existing items/locations) and Virtual, (the technological side, the web).

This information is something to take into account when considering location-based services. With location-based services you automatically combine two of the above stated elements; virtual and reality. You, or companies (such as *Tomtom*), tag the actual, physical environment with digital data. Applying this technology to stores, and perhaps adding the social element, could be just that special something that is needed to draw consumers back to city centers such as Utrecht. In the next section I will move on to that social element, social media, and how this could be applied to LBS.

1.3.4 Social media

If one could pinpoint a hype in the last few years, the term 'social media' would be it. 'Social media are revolutionary', they have 'changed the core of our very society' and 'no company in their right mind should conduct a marketing strategy without using social media' are all opinions I have had the dubious pleasure of hearing over the last few years. So what exactly ARE social media? To discuss this at length is beyond the scope of this report, so instead I will offer a quote by Brussee and Hekman (2009):

"(...) online services that enabled large groups of users to: create and share thoughts and stories (Blogger and Twitter); share information and links (Delicious, Digg and Twine); share multimedia (YouTube and Flickr); create and share knowledge (Wikipedia, Yahoo! Answers and SlideShare) and; create and share relations (Facebook, MySpace and LinkedIn). These services are collectively known as social media."

To take this back to a location-based service context; when using a location-based service in an informative setting (as described in section 1.3.3.), users tend to appreciate both the option to read and leave reviews about venues (Shankar et al, 2010). Besides that a social element in location-based services is an important factor in getting people to use a service (López-Nicholas, Molina-Castillo & Bouwman, 2008). Also, in-store mobile services are most often used to consult with friends before deciding to purchase (Shankar et al. 2010).

Many companies have started up businesses using LBSs as a basis for a social network (e.g. Foursquare, Gowalla, Feestje). Other existing social networks are adding LBS functionality to their system (e.g. Twitter, Facebook). And obviously, LBS have not failed to penetrate the world of marketing, either.

Researchers are now beginning to start the discussion whether LBSs are a viable platform for mobile marketing. You have the ability to reach consumers at an exact time and spot, which

could potentially make targeted marketing that much more successful. Giving someone a heads up that the shop next to them serves a mean cup of coffee while they are walking through the city in the morning is more effective than telling them that shop serves a mean cup of coffee through their television set at home, in the evening. So how do these things work? Let's start with some examples of currently existing location-based services.

1.4 Existing location-based services

1.4.1 Informative

Tomtom Places

Tomtom Places is roughly said a version of the yellow pages, but linked to a map. Virrantaus et al (2001) would categorize this under 'Mobile Yellow Pages Service' as outlined in section 1.3.3. The *Tomtom Places* interface offers you two fields: "What are you looking for?" and "In or nearby?". So if you enter 'Cafe' and 'Utrecht' it shows you a map with all the Cafes that have entered their data into the Tomtom system. Besides a geographical location, Tomtom Places also provides you with a short description of the businesses, their opening hours, payment systems and consumer reviews. The service is freely available through their website and navigational systems. I also interviewed someone from *TomTom places* (Maarten Clemens), the transcript of which can be found in the appendix.

The most important element in *Tomtom Places* is finding POI's, or Points of Interest. Finding and cataloguing this information in a qualitative way requires a lot of work and research.

Tomtom goes about this in different ways; they purchased information from the *Yellow Pages*, they scavenge for information themselves online and offline, and businesses have the option of entering their own details into the *Tomtom* database themselves. Consumers of *Tomtom* navigation systems everywhere are already entering service specific search queries into their navigation hardware and the potential market for a more detailed, city guide type location-based service is huge. (Clemens, 2011).

1.4.2 Social

Foursquare

Foursquare is arguably the most well-known LBSs among smartphone users. It is a game-based system; one shares their location with acquaintances, called 'friends' by checking into venues. For every 'check-in' a user collects points and he/she can compare their high score with their friends. The person who checks into one venue the most becomes 'the mayor'.

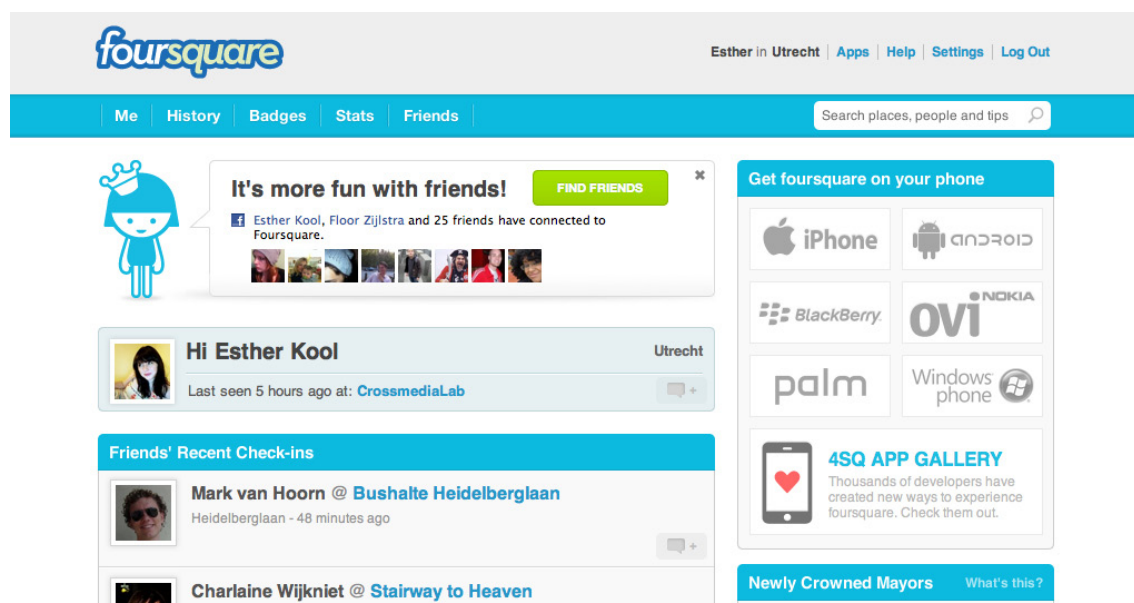


Image 3. Screenshot of the *Foursquare* homepage

This concept has led to some interesting marketing strategies. The person who becomes 'mayor' at their local *Starbucks*, for instance, gets a \$1 discount on their frappuchino (Van Grove, 2010). *Foursquare* is the first location-based service that started the practice of letting their users 'check in'. Before, services like *Dodgeball* (from the same creators as *Foursquare*, but now known as *Google Latitude*) already located their users automatically, but *Foursquare* were the first to make it into an active instead of passive phenomenon. A lot of location-based services on the market today require some form of checking in.

Feest.je

Feest.je is a Dutch location-based service, part of *The Next Web* incubator, set up from offices in Groningen and Amsterdam. In 2004 the people behind *Feest.je* used a box containing a GPS-receiver and six sim-cards and they cycled across Amsterdam to pinpoint all transmission towers. Based on this set of data, they developed their own location-based service; *Feest.je* (Van der Vliet, 2011). *Feest.je* got started about two years ago and have about 13.000 - 17.000 active users in the Netherlands, depending on your definition of 'active'.



Image 4. Screenshot of the *Feest.je* homepage

In this application, users can check into places and create temporary venues called 'feestjes'; the Dutch word for parties. Obviously the option exists to see where the parties nearby are taking place, or what parties the friends in your network are attending.

Besides this, *Feestje* got started setting up deals with local businesses. Similar to *Four-square*'s deals, users can unlock rewards by checking in to venues. Below you can see an screenshot of a deal actually on offer in the Utrecht city center at *Cafe Hofman*. By becoming the 'king' (the person who checks in the most often) you get a 50% discount on special beers.

For my research I interviewed one of the men behind *Feestje*; Dennis van der Vliet. The Dutch transcript of the interview can be found in the appendix.



Image 5. Screenshot of the *Feestje* app on an iPhone



Image 6. Screenshot of a deal on the *Feestje* platform

Gowalla

The runner-up to *Foursquare*, at least in the US, would be *Gowalla*. It is a similar service but the emphasis is on travel. 'Spots' (locations) are categorized by 'stamps' (icons), and *Gowalla* users can collect stamps into their 'passport' whenever they check in. Users can create trips directing others to their favorite spots, and so on. Businesses can buy custom 'stamps' to make themselves stand out and provide users with an incentive to drop by. After all, these custom stamps are collectibles! (Gowalla.com, 2010)

Facebook Places

Facebook Places is *Facebook*'s newest addition. *Facebook* is currently the largest social network around, with about 600 million users. Recently they launched *Facebook Places*, a mobile-only function where people can check in to locations. The people behind *Facebook* opened up offices in Amsterdam this year to work on their local connection. The plan is to start deals and such on this platform as well. (Van der Vliet, 2011)

1.4.3 Retail specific

Placecast

Placecast offers text-based mobile marketing to retailers. Consumers can opt-in to receive text messages sent by the retailer when they are nearby a location that is relevant to the offer. Placecast offers geofencing (fencing off a specific geographical area in which messages can be sent, the technology of which is not fully explained on their website but cell-based location technology is suspected) and time specific messaging as specified by the retailer. (Placecast.com, 2011). One of the major advantages of Placecast is that it does not require a smartphone to be used by consumers, as text-messaging is a technology that is available on almost all cellular phones.

Shopkick

Shopkick is an application for Android and iPhone devices that rewards its users with points, or 'kicks', from simply walking into stores. Besides that, checking in and scanning barcodes can generate even more kicks. Kicks can be redeemed for rewards such as giftcards or even



Image 7. Screenshot of the Shopkick app, taken from their website.

Besides these examples there are many other LBSs, all struggling to find the best model to gain users and profits.

De Reuver and Haaker (2009) summarized the reasons behind possible failure of context-aware services like LBS, suggesting primarily faulty business plans were to blame. Consumers are usually not willing to pay for mobile services, the applications don't offer sufficient added value, legal considerations were forgotten et cetera.

Especially the Millennials are weary of mobile advertising, because they feel it is an invasion of their private sphere as mobile devices are regarded as a very personal item. (Shankar et al, 2010). This is a strong indicator that when one considers setting up a Location-based service, a sound business plan is of vital importance. The STOF method could be used to create such a business plan.

The STOF business model is a model setup by Bouwman et al. (2008) to create a sound business plan for mobile services, with an emphasis on Human Centered Design instead of Technology based design. The STOF model consists of four steps; the quick scan, the Critical Success Factors (CSFs), the Critical Design Issues (CDIs), and finally the internal and external issues concerning the service. All of these steps are taken within four categories, see the image below. I will apply the theory and sources I read based on these four key areas.

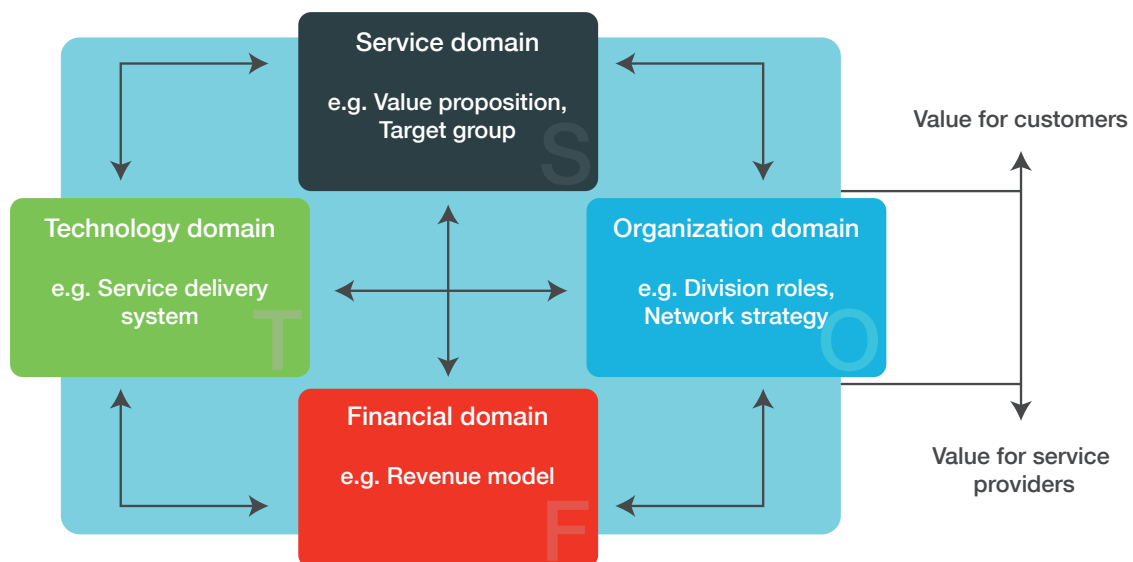


Image 8. The STOF model by Bouwman et al. (2008)

1.5.1 Service Domain

To explain the STOF method I will propose the following service concept; a reward system based on the API of *Feest.je* for people who check into shops at the Lijnmarkt in Utrecht (the Lijnmarkt is chosen because it is a typical retail street in a city center, more information on this can be found in section 3.3; 'Utrecht and the Lijnmarkt') by offering them discounts or special deals. The intended value for the customers (the retailers) is the fact that more people are drawn to the Lijnmarkt, and the intended value for the end-user (the smartphone users) are discounts or special deals. The context of use for the service is people who are shopping in Utrecht pick up their phone, open the *Feest.je* application and get notified that if they (for instance) check into *The Witte Ballons* (a Cafe), they can show their phone to the bartender and receive a free cup of coffee.

The application is free for mobile users, and checking in requires little effort. It has to be, or people will not use the product.

*“You’re delivering content from other people, and people don’t want to pay for that.”
(translated from Dutch, Van der Vliet, 2011).*

The app is quickly downloaded, an account is created within moments and with the push of a few buttons one is checked in.

There are similar services to this, like *Foursquare*. *Fourquare* also lets you check in and also provides deals for users, but *Feest.je* has some competitive advantages.

Users love the look and feel of the application, and they like the fact that its Dutch. Also, because *Feest.je* is a local company it is a lot easier to maintain contact with the retailers, which is something US-based *Foursquare* lacks. (Van der Vliet, 2011)

When using mobile marketing like this, the Mobile Marketing Association (2007) provided some best practices; several messaging strategy, two-way communication, use people’s location, ask for permission, and use simple language that’s relevant, short and to the point. Something to keep in mind as well is that mobiles have smaller screens than PC’s, and people are on the go and do not want to spend too much time browsing to find their information. Luckily, the design of the *Feest.je* application is perceived as being very nice and easy to use. (Van der Vliet, 2011) Besides that there are some more practical matters to take into consideration, such as not using case-sensitive forms and keeping graphics to a minimum to decrease loading times.

The most interesting aspect of LBSs when used in mobile marketing is a call to action. The fact that users are on the move while using the application should be used to its benefit. (Mobile Marketing Association, 2007).

1.5.2 Technological Domain

First off, users need to own a smartphone with GPS and internet capabilities.

Most smartphones have the option to connect to a 2G or 3G network, and these networks are continuously being improved in the Randstad area. (De Groot, 2011)

According to a study of TNS almost a third of mobile users in the Netherlands are already using their devices for location services, and another third of respondents said they would like to. (Mobile Life, 2011)

Users need to be able to actually see that there are deals available. This can either happen through push notifications (that users can themselves turn on or off in their phone’s settings) or users can look up the information in the app itself. Kaasinen (cited in de Reuver & Haaker, 2009) listed some user preferences of LBS, some of which indicated that push notifications need to be user-controlled and location data needs to be clearly marked. Content creation is also appreciated, so users should be able to enter tips about locations themselves as well.

Thankfully, *Feest.je* is introducing user-generated badges soon with which users can reward venues for, for instance; drafting the best beers in town. (Van der Vliet, 2011)

Different smartphone platforms need to be considered, de Reuver and Haaker proposed that system integration is a critical design issue for context-aware services (2009). This year The Phone House (2011) conducted a study into 1000 smartphone users to determine their preferences. The results; the most popular system in the Netherlands is Google’s Android system (34%), followed by the iOS structure by Apple (21%) and finally Windows Mobile (17%), Blackberry (16%) and Symbian (13%).

Developing for Android is difficult because of the different phones and screen sizes, so this does mean there is added room for error which needs to be taken into account. (Van der Vliet, 2011)

From the retailers side, there needs to be the option to put deals on the application. This can be done via a form on the *Feest.je* website.

Finally, user profile management is a factor. Users will not share their location unless they trust a service’s security completely. Privacy laws indicate user profiles can be saved if users opt-in, but the information may not be sold on to third parties. (Van der Vliet, 2011).

1.5.3 Organizational Domain

When looking at the organizational domain, one has to consider the actors involved in the service and which roles they are going to play. (De Vos and Haaker, 2008)

In this case, the actors are

- The service providers:
 - The programmers behind *Feest.je*; though the application is already in existence, maintenance and improvements are always on demand.
 - The retailers who have to invest in the application and the deal; they will eventually be the ones paying for the service and the ones that put the actual deal information on the platform.
- The network operators who have to stream the data across their networks, though many agree that they are only of little importance when context-aware services are involved (de Reuver and Haaker, 2009), for now. Especially in the Netherlands as there are no regulations concerning the type of data streamed (Van der Vliet, 2011).
- The platforms on which the application is built (the application has to be approved to be sold through their application web stores).

1.5.4 Financial Domain

The financial domain of mobile services is a tricky one. As Van der Vliet (2011) stated in the interview; people are not willing to pay for other peoples content. De Reuver and Haaker (2009) add to that by saying that internet services have always been free, so users expect mobile services to be free as well.

“More experts regard mobile advertising as a significant revenue source for mobile-services, especially if advertising can be made “more focussed, personalized and contextualized”.” (De Reuver and Haaker, 2009)

This would indicate that the money has to come from the advertisers, in this case the retailers. Which is exactly what Van der Vliet (2011) expects to happen as well.

“The money has to come from, on the one hand, businesses who buy exposure on the platform; the big companies and brands. After that, eventually, we assume the majority of profits will come from our deals.” (Translated from Dutch, Van der Vliet, 2011)

Red C is a company that develops applications for iPhones and their estimate for a fully functional iPhone application is about €11.000 (Red C, 2011). The cost for developing on several platforms, including multi-device platform Android, will obviously far exceed these amounts. *Feest.je* is being developed through investments and their aim is to eventually start earning money, though that is not currently their goal (Van der Vliet, 2011).

Should a new service be built on the *Feest.je* system, however, the investment should be fairly low as the basic application is already in existence.

As Van der Vliet explained during his guest lecture at the Hogeschool Utrecht in april 2011; Receiving funding for a new application could be problematic, though, as there is a chicken-egg type problem. When you have a location-based service that offers deals FROM retailers TO consumers, you act as a type of middle man.

Usually the dynamic goes: supplier > manufacturer > consumer. With a location-based service, however, you get into a two-sided business model, a type of market if you will. He used the following image (see next page) to explain, further explanation can be read in Rochet & Tirole (2004).

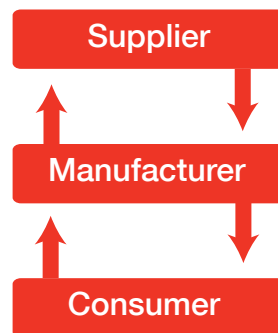


Image 9. Two-sided business; the LBS marketplace (based on Van der Vliet, 2011)

Van der Vliet explained by comparing it to a club. If there are only guys, the guys will be pissed off and leave and vice versa. The same goes with location-based services. A lack of prospected users will not encourage retailers to fund a new location-based service, but a lack of appeal or added value of consumers will not encourage them to start using (or purchase) the service.

1.6 TAM & UTAUT

The Technology Acceptance Model (TAM) is used to determine what makes users adopt new technology.

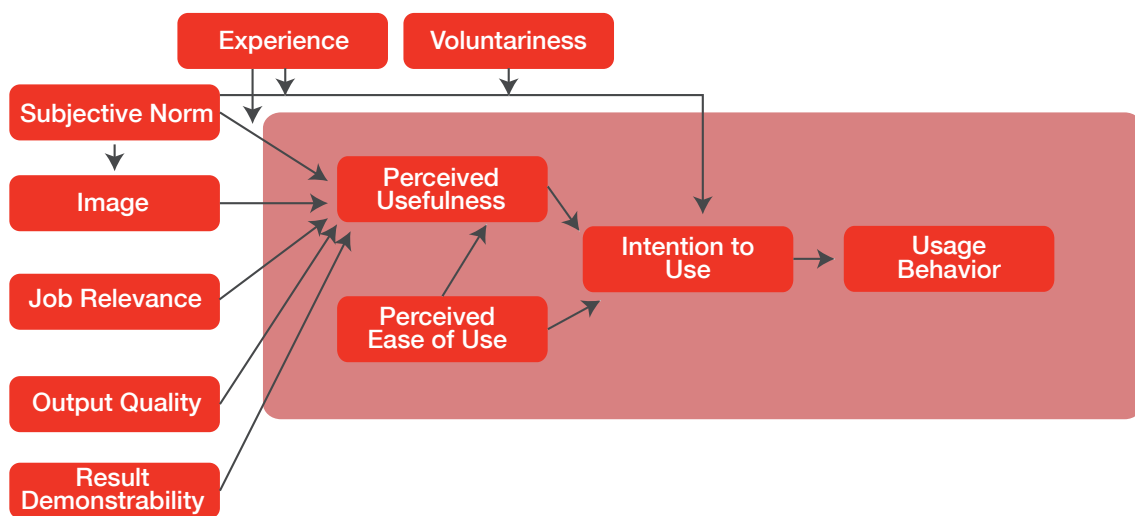


Image 10. Enhanced technology acceptance model (TAM2) by Venkatesh & Davies as cited by Kaasinen (2005)

As you can see above, external variables influence the consumer's perceived usefulness and ease of use of a new technology such as mobile services. This in turn influences their attitude about the technology, and how they intend to use it (which is not necessarily how they end up using the technology in the end).

The TAM model can be used as a guideline in determining the use and attitude of consumers towards a mobile service such as LBS.

Venkatesh et al. combined the TAM theory with other user acceptance theories and tried to create a Unified Theory of Acceptance and Use of Technology, which can be seen on the next page.

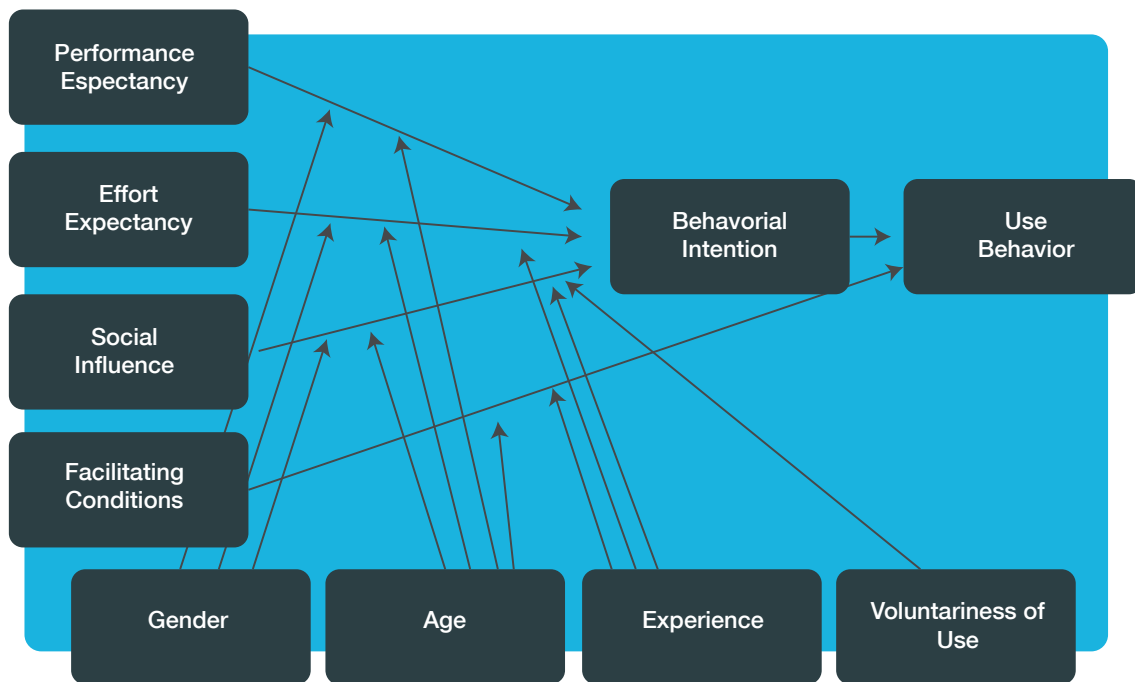


Image 11. The UTAUT (Unified Theory of Acceptance and Use of Technology) by Venkatesh et al. (2003)

The UTAUT model was researched to be more successful than the other acceptance models and can be used by new service creators to identify key characteristics in their service that might need work to get the service to be used by consumers.

“UTAUT thus provides a useful tool for managers needing to assess the likelihood of success for new technology introductions and helps them understand the drivers of acceptance in order to proactively design interventions (including training, marketing, etc.) targeted at populations of users that may be less inclined to adopt and use new systems. “ (Venkatesh et al., 2003)

Shankar et al. (2010) discuss the elements that are of importance for the adoption of mobile services in the retail environment, based on the TAM model. They determined that the ability to network is important, with different networks being important for different target audiences. For millennials this means friends and family, for road warriors the emphasis is on their professional network. Retailers should take into account which group they would like to target. Secondly, price and ease of use are important; both for the device needed as the application itself. Without trust, mobile use is doomed as well. Trust is needed from the consumer side in the application, the service provider AND the retailer.

A way of clarifying the acceptance of mobile marketing in the retail environment is by looking at the conceptual framework by Shankar et al. (2001) (see next page).

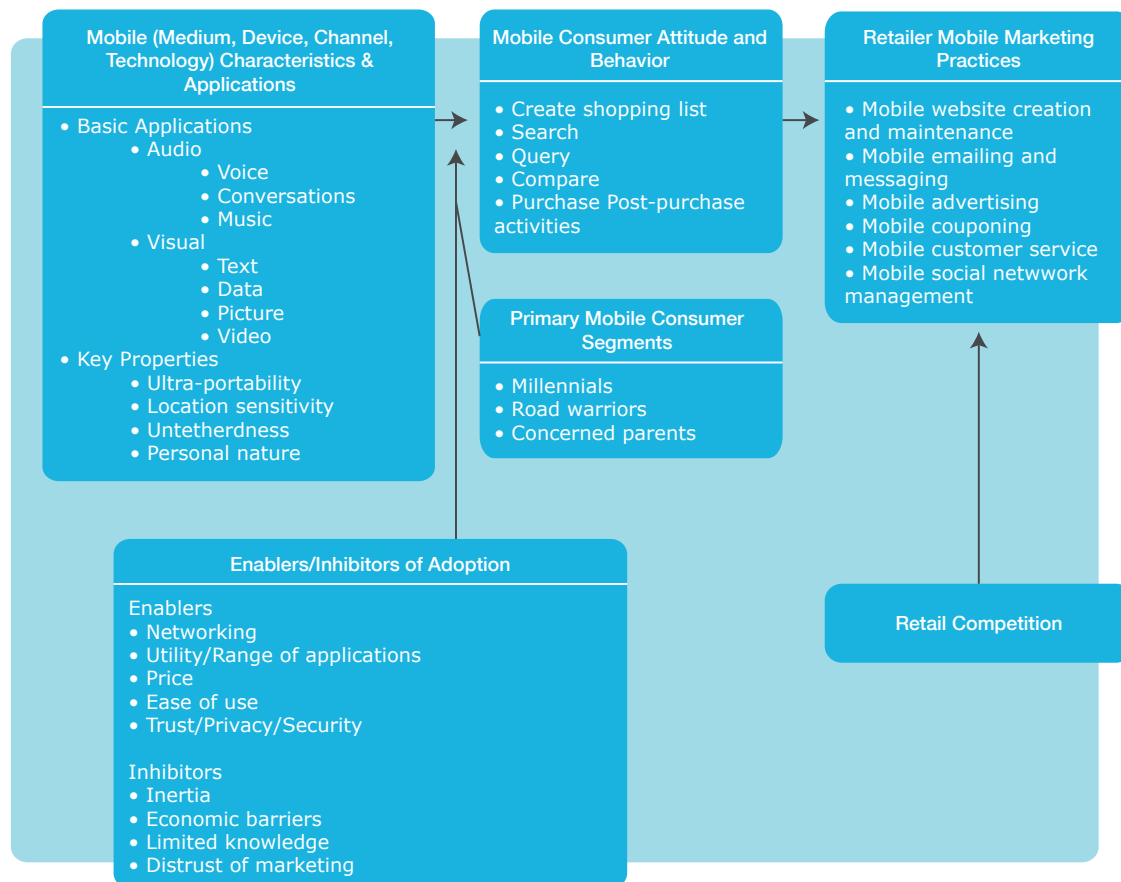


Image 12. Conceptual framework of mobile marketing in the retail environment by Shankar et al (2001)

When retailers are considering using mobile services to interact with their customers they should take the factors in this framework into account.

A study conducted on Dutch consumers by López-Nicholas, Molina-Castillo & Bouwman (2008) states that social influence is quite important in the adoption of mobile services.

“The opinions of friends and relatives have a significant impact. The positive impact of social influences on PEOU is of special interest. Our results indicated that social influences should be viewed as an antecedent of constructs explaining the adoption of mobile advanced services.” (López-Nicholas, Molina-Castillo & Bouwman, 2008)

This would suggest a combination of functional elements (finding services, city guide/yellow pages services) and a social element (the ability to share the content with friends, a gaming element perhaps) could benefit an LBS for retailers and consumers alike. These indications point back towards the comments mentioned in section 1.3.4 ‘Elements of success in the current media landscape’; in which the factors virtual, human and reality are combined to generate success.

When looking at inhibitors of mobile services, inertia and limited knowledge are something that should be looked at as they may be problems that could be solved. The lack of knowledge can be solved by properly communicating the existence and use of the service to both retailers and consumers, which could be done by utilizing existing communication channels. Inertia may be battled by providing a really easy way of using the product (a proper user interface) and by making it fairly cheap or freely available for consumers. A further definition of successfactors of an LBS can be found in chapter 5; Conclusions.

2. Research questions

2.1 Overall research problem

The combination of online shopping and the shifting of shopping in the city centre to the peripherals of the city have created a problem for retailers in the city centre of Utrecht (Huibers & Van Vliet, 2010). Retailers themselves have not consciously chosen to use the internet as a channel for reaching consumers but rolled into it, creating websites with simple information like their address and sometimes small web shops. These web shops can be counter productive as, among other things, it reduces impulse buying. Too much information regarding the stores can reduce sales as well, as consumers are better informed and the leap towards purchasing goods from others is not very large. (Nierop, 2011) The integration between online and offline shopping could be improved.

Entrepreneurs in the Utrecht city centre would like to use new cross-media possibilities, like location-based services, to achieve this (Huibers & Van Vliet).

As location-based services are stated by many to be one of the most well known mobile technologies and sometimes even one of the technologies that has the most value to offer (Haaker, De Vos & Bouwman, 2006; De Reuver & Haaker, 2009;), this research is aimed at finding out whether location-based services could also be of added value in the context of city center retailers.

2.2 Primary and secondary aims/objectives of the research

In the introduction I proposed the following research problem:

“How can you integrate online and offline shopping using location-based services on mobile devices in such a way that it benefits retailers and consumers?”

In the theoretical framework I have already tried to answer the research areas “what is a location-based service?” and “how are online and offline shopping related?”.

By doing my own research, the methodology of which will be discussed in the following chapter, I wish to answer the other two research areas as the primary aim of the research, i.e. “Is there a (current) market for an LBS in Utrecht, and can it attract new customers in store?” and “What can be the added value of LBS for consumers and retailers?” By doing careful and practical research into these key areas I propose to answer the following research question:

“What type of location-based service can draw consumers into stores in the Utrecht city center and create value for both the consumer and the retailer?”

Questions pertaining to the above mentioned question are listed below, ordered by means of the STOF method.

Service

- Why would consumers be drawn to using a location-based service, what is in it for them?
- Why would retailers want to use an LBS? What's the added value for them?
- Can a mobile LBS contribute to a successful marketing strategy in Utrecht?
- Which store types would be most suited to use LBS to attract consumers, and why these?
- Which area are we targeting?

Technology

- What are the technological requirements to support LBS in Utrecht?
- Can the wireless network in Utrecht support mobile applications adequately?

Organization

- Retailers in Utrecht - what exactly do they want and what are their preferences in achieving their goals? Are those preferences applicable?
- Should the focus be on all retailers or a few? Specific to services and food industry, for instance?
- Providers - Do I need their assistance when introducing an LBS? Are they of influence on the way an LBS is spread?
- Developers - Are separate developers needed to create the LBS? If so, what which ones and what do they need?
- County representatives - are there rules and regulations within the county to take into account when implementing an LBS? Do they have specific needs that should be addressed?

Finances

- Should consumers pay money for an LBS, and if so how much?
- Are retailers willing to invest into an LBS? Is now the right time for them to do so?

The secondary aim of the research is to spread information regarding location-based services among the parties involved, for instance the smartphone users and the retailers themselves. Hopefully by participating in the research in different ways their own knowledge about cross media possibilities and their particular use in their own context will be increased and used to their benefit.

Before starting the active research I wanted a sound literature basis to base the rest of my research on. Through reading and analyzing previously published information I would like to get a better perspective of the previous (what has been done?), current (what is the problem, what are other people doing wrong and right?) and desired (what do the target audiences want?) situation.

Besides reading up on existing research, I wanted to do some case studies on existing location-based services like *Foursquare*, *Groupon*, *Feestje*, and the like. What are their business plans and success factors?

To find the answers to my research questions I wanted to read about the following topics, as I believed they could provide me with insights into the topic;

- The changes in shopping behavior (due to the rise of the internet)
- Shopping and tourist behavior in the Netherlands
- Shopping behavior in Utrecht
- Mobile marketing and mobile shopping behavior
- LBS technology
- Using the STOF method (Faber & de Vos, 2008; Bouwman et al, 2008) I wanted to look up information on the different elements that are of importance in an LBS.
- (Un)successful commercial application of LBSs.

Search terms I used are:

- Location-based services
- Locative services
- Retail
- Mobile
- Mobile marketing
- Smartphones
- Context-aware services
- Shopping behavior

To ensure reliability and quality of the data I upheld to a few criteria;

- Search engines like *Science Direct* and *Google Scholar* were used
- Journal articles with a high number of citations by others took precedence
- Recent articles took precedence

Besides books and journal articles I also subscribed to *Google Alerts*, a mailing system that gives you the news items and web articles linked to the search term you specified.

My search terms were:

- Location-based service
- Mobile Marketing
- Retail stadscentra (city centers, the choice for Dutch in this instance was because my research is limited to Dutch retailers so news items regarding international city centers would most likely be of little use or beyond the scope of this research)

3.2.1 Research design

The interviews themselves were fairly uniform, but because of the fluid nature of conversations some of the questions may have been asked in a different order or within a slightly different context. I tried to control this variable by keeping the questions close at hand and checking in between questions if certain topics had been left out or not properly discussed.

3.2.2 Operationalizations

To answer the questions I proposed in chapter two I wanted to get the opinions of experts on the subject who are actively using LBSs in their everyday work. To conform the answers I would get from them to my goal of writing my own concept for a location-based service for Utrecht I created the interview questions using the STOF method. As I already used this method to base my literature research on, and it is a viable method to test the success of mobile services, it seemed the wisest choice to keep using this method.

The questions were, as stated, asked in Dutch and have been added to the appendix.

3.2.3 Instrumentation

The interviews were conducted at the location of the interviewees' choice. The duration of the interviews was between 30 and 60 minutes, and were conducted one-on-one.

No formal previously published instrumentation was used, though the questions were mostly based on Bouwman et al.'s STOF business model and checklist. (2008)

3.2.4 Participants

To elicit valid and reliable information, interviewees were pre-selected through internet research. As stated I contacted Dutch-based location-based services through email. The email was checked by the research group to make sure I addressed everyone properly. The fact that I am a graduate student performing this research in an educational context was specified to ensure companies would not be scared I would use the information they gave me for commercial purposes. To compensate for their cooperation I promised interviewees to send them my final research report.

In the end the emails elicited three responses;

- Dennis van der Vliet from *Feest.je*
- Maarten Clements, research engineer at *TomTom Places*
- Michiel Verberg from *Whatser*

Mr. Verberg's acceptance to be interviewed was unfortunately not used as his response to help out came too late and there was no more time to conduct the interview, transcript and analyze its results in time.

3.2.5 Material

The materials used in the interviews were:

- An iPhone to make sound recordings of the interviews
- Pen and paper to make additional notes
- Word processing software to transcript the interviews later on
- *Adobe InDesign* to style the interviews

3.2.6 Procedures

Based on the literature research and thorough discussions with the Crossmedialab research group a decision was made to interview experts on the subject of location-based services. I sent emails to Dutch location-based services asking them whether someone had time to spare for an interview. The interviews were prepared and conducted in Dutch at a location of their choosing (their offices, in effect). Besides this I also translated the questions to English and sent out the questions in questionnaire form to international location-based services, but as nobody responded to this questionnaire (only two incomplete responses) the results of this research angle have been dropped from the research.

3.2.7 Data collection

The interviews were stored as sound files (mp3's) on both my iPhone as well as on iTunes. The interviews were played back using iTunes and transcripts of the interviews were written in OS

X pages. After that the transcripts were laid out properly using *Adobe Indesign*. Both the pages and the *InDesign* files were backed up both on a separate harddrive as via *Dropbox* (online service that stores files in the cloud).

The interviews (in Dutch) can be found in the appendix.

3.3 Utrecht and the Lijnmarkt

Utrecht is one of the oldest and largest cities in the Netherlands, situated right at the center of the country. Its city center is fairly compact and characteristic (the historic Dom tower being the tallest church tower in the Netherlands, for instance) and is considered to be an excellent place to shop (Platform Binnenstad Utrecht, 2006).

In 2006 a document was published by several interest groups (for instance the chamber of commerce, the Hoog Catherijne Interest Group, the Utrecht Business Association, et cetera) collectively known as 'Platform Binnenstad Utrecht', stating the vision for the Utrecht city center. Their goal is to portray Utrecht's city center as:

"The shopping city of the Netherlands with historical appeal." (Platform Binnenstad Utrecht, 2006, translated from Dutch)

They want to bring 'quality' visitors back to the city center and have them spend time on Utrecht's culture, dining and drinking facilities and retail. Right now there is barely any tourism in Utrecht, and the Platform Binnenstad Utrecht would like to change that.

Part of these changes involve improving Utrecht as a location for shopping. The document states that part of the problem concerning a lack of shopping public is the fact that people think the city is hard to reach, which is not exactly accurate. Consumers can find Hoog Catherijne, the Steenweg and the Oude Gracht, but the rest is a bit of a challenge. Proper signs and navigation could help change that. (Platform Binnenstad Utrecht, 2006)

The Lijnmarkt is a typical Utrecht city center street with retail locations as described in the previous sections. In my research I decided to focus on this street and conduct a general case study to illustrate the current use and possible future of location-based services in the right context.

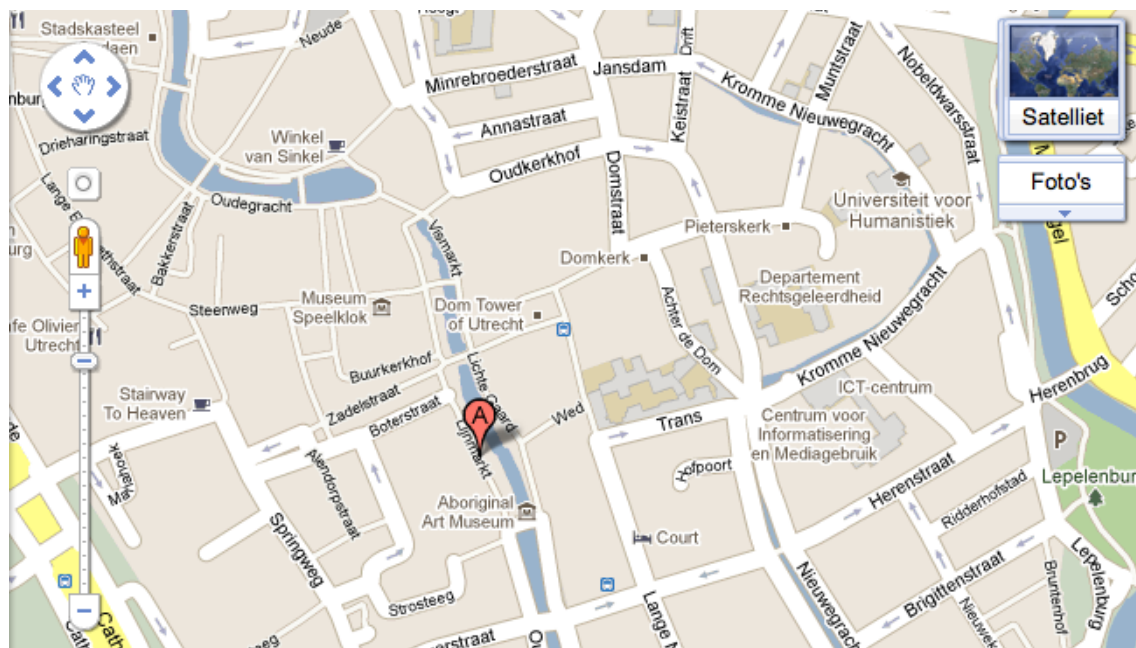


Image 13. Screenshot of the Lijnmarkt as featured on Google Maps

The Lijnmarkt in Utrecht is characteristic for the target audiences in my research. Not only is it in the city center, but it is a passing street between the train station and the Oudegracht, so it is frequented by many people on a daily basis (more on that in the research methodology chapter).

In this street sporting 50 address numbers are 46 locations, most of which are small or independent retailers. It also features two Cafes and a restaurant and since the beginning of my research one particular shop (Foto Boekhorst at Lijnmarkt numbers 5-7) closed down and turned into a coffee and sweets shop.

The full list of stores and their business can be viewed below.

Address #	Company name	
1	Boutique Lacoste	Clothing store
2	Scotch & Soda Flagship store	Clothing store
3	Ger Schoen	Leather goods
4	Vitamin Store	Healthstore
5-7	Foto Boekhorst/Brandt Koffie	Photography store/Coffee and sweets shop
6	Edelstijl Juwelier	Jeweler
8	Petit Bateau	Baby and toddler clothing
9	Bond en Smolders	Pastries, cakes and coffee
10-12	De Witte Ballons	Bar Bistro
13	Michel Stoffen	Clothing and fabrics
14	La Chiara Cioccolata	Chocolaterie and business gifts
15	Netjes Kleding	Clothing store
16	P 'n P (Prods and Primes)	Home decor and gift shop
17	De Literaire Boekhandel	Bookstore
18	Aliazzo	Clothing store
19	Cora Kemperman	Clothing store
19	La Ligna	Clothing store
20	Colori Shoes	Shoe store
20a	Noa Noa	Clothing store
21	Waar	Sustainable gifts shop
22	Wolspecialzaak Modilaine	Wool and clothing store
23-25	Image	Clothing store
24	NES	Clothing store
26	BIS	Cafe
27	A.R.T.	Clothing store
28	Tailors & Co	Klerenmaker
29	MBT	Shoe store
30	10 Days	Clothing store
31	G.A.J. van den Heiligenberg	Home decor and gift shop

Address #	Company name	
32-34	Aba-i	Home decor
33	Baars en van de Kerkhof Passementerie	Decorations
35	Wolky	Shoe store
36	Fotopatent	Photography store
37	Players	Shoe store
38	De Duif	Lighting (going out of business sale)
39	Samira's Wenlin	Egyptian (and other African) products
40	Optical Art	Optician
41	Eleganza	Shoe store
42	Lien & Giel	Clothing store
43	Kathmandu	Clothing store
44	Bag it!	Clothing store
45	Noahs	Kinderwinkel
46	Wikkemode	Clothing store
47	Van Pommeren	Kitchen appliances
48	Culturemix	Jeweler
50	Cafe de Postillon	Cafe

Table 5. Full list of locations on the Lijnmarkt

3.4 Workshops LBS theme day

On the 19th of April Workshops with Digital Communication students were held in which they were to come up with a location-based service concept for the Lijnmarkt in Utrecht.

3.4.1 Research design

All teams got the same information, the same restrictions and the same amount of time to work on their LBS concepts. The target audience were all Digital Communication students in the same age group (with a single exception, a fellow Crossmedialab graduate student who studies International Communication and Media participated in the first workshop as well), from the University of Applied Sciences Utrecht.

3.4.2 Operationalizations

The workshops were created with several goals in mind.

- The increased importance of location-based services and to increase the knowledge of students about this subject
- To clarify the role of location-based services in the project for center retailers
- To explore different business models and modern means of marketing through means of social media and location-based services

3.4.3 Instrumentation

Faber and de Vos (2008) suggests using focus groups, design workshops and experience sampling with end-users and/or experts on the subject. The workshops were chosen as a method because the tools to do so were readily available at the University and it would provide a unique way to research possible applications of an LBS.

Data can be identified because all teams were given a number and categorized by the workshop they identified. Team 3 from workshop 1 would be team 1-3, for instance.

3.4.4 Participants

Though the group of Digital Communication students who follow Kees Winkel's marketing communication course were easily reached due to Kees Winkel being my company supervisor for my thesis, and thus a convenient target audience, they were actually chosen for a more profound reason as well. The weeks before the location-based service theme day, these (mostly) gentlemen had been working on their own location-based service concepts for the marketing communications course taught by mr. Winkel. That means they were already in the right mindset preceding the theme day itself. These are all young, soon to be, media professionals and their field of work will be the most likely to get into contact with mobile applications (such as location-based services) within the next few years. The marketing context in which this course was taught was of added value as well, that way directing the students back towards sales and by extension; retail. Thankfully most of these students put their best foot forward and participated with great enthusiasm in the project.

The first of the workshops had an attendance of around forty students. These were divided in groups of four or five, so we ended up with eight different location-based service concepts. The second workshop had an attendance of about 15 people who were divided in groups of three, creating another five concepts.

3.4.5 Material

The following materials were used during the workshops:

- Posters to inform the involved parties of the LBS theme day
- Keynote presentations projected by a beamer to brief the participants
- Posters designed by the marketing-communications students to provide the right atmosphere and setting
- Photographs to record the proceedings
- Flip over-board paper, post-its and markers to be used in the brain storm sessions
- Photoshop files for iPhone Application design to design the mockups with
- *Mobypicture.com* to upload the mockups to

3.4.6 Procedures

There were two workshops in total, the idea was that half of the digital communications students would attend the first workshop and the other half the second. In reality, most students showed up for the first one, joined by some of my fellow Crossmedialab graduate students (who study Digital Communications as well, bar the exception mentioned before) and only a few students attended the second. This was interesting though, because the quiet nature of the second workshops may have influenced its outcomes.

During the workshops themselves I walked around, listened in and sometimes offered suggestions and information regarding location-based services and the Lijnmarkt to the teams working on their concepts. Dennis van der Vliet and Kees Winkel did the same.

The workshop design was as follows:

1	Introduction & briefing	5 min
2	Session 1 Mind mapping Write down elevator pitch in three sentences	20 min
3	Session 2 Create mock up from concept session	30 min

4	Break	10
5	Session 3 Continue creating mock up	35 min
6	Finalization Mock up presentations Word of thanks	15 min 5 min

Table 6. Workshop design

In practice, however, we found that thirty minutes of mind mapping was appreciated as not every team had thought of an LBS in time, and the break was held about ten minutes later into the workshop as well. During the second workshop because of the lack of attendees and quiet atmosphere, the teams were told to take their ten minute break when they saw fit. Almost all teams managed to present their concepts within a minute, so the allotted two to three minutes of presenting time was not needed.

3.4.7 Data collection

The guest lecture and its discussions were, as mentioned before, recorded via Weblectures. During the lecture, Van der Vliet was asked to repeat questions asked as well to make sure everything was recorded properly. The workshops were photographed extensively. The mind maps were saved and all the mockups were uploaded to Mobypicture.com (a website where people can upload images and directly share them on various social media websites) to Dennis van der Vliet's account.

All images were saved to my hard disk and backed up to Dropbox (a back up system in the cloud; virtual space) as well.

Afterwards I compiled a document with the mock ups, images and descriptions of the different concepts. This has been added to the appendix, as stated before.

During the workshops themselves I walked around, listened in and sometimes offered suggestions and information regarding location-based services and the Lijnmarkt to the teams working on their concepts. Dennis van der Vliet and Kees Winkel did the same.

3.5 Case Study Lijnmarkt

The case study of the Lijnmarkt consisted of several components, some of which I conducted in cooperation with fellow Crossmedialab graduate Thomas Vente.

First off, a list was compiled of all the venues in the Lijnmarkt (the summary of which can be found in chapter one).

The following details were added to create the full list:

- A photograph of each venue
- Company name and address
- Chamber of commerce name and number
- Type of venue (i.e. clothing store, cafe, optician, et cetera)
- URL to their website, if available
- A screenshot of their website, if available
- URL to their *Facebook* page, if available
- *Twitter* alias, if available
- Coordinates to the venue location
- *Foursquare* venue number (and specification whether this was in existence or created by the researcher)

All these details can be found in the appendix.

Second, the internet use of the retailers was analyzed. This was done both by (if available) studying their website, their social media use (including how frequently this is updated and with what information), and by doing a few short interviews with retailers themselves. (The questions I asked them can be found in the appendix)

Third involved mapping out the actual location-based service use by consumers at this point in time. A focus was put on *Foursquare* in this instance, as that is currently the most popular location-based service. The amount of checkins were measured over a period of time. Also, the amount of visitors of the Lijnmarkt and specifically of *Bond and Smolders* (is this proved to be one of the spots that most people checked into) were counted at three different points in time.

3.5.1 Research design

The independent variables in this research were the following:

- The data taken from each venue to create the Lijnmarkt List
- The period of time when their online presence was analyzed
- The elements that were checked during this above mentioned analysis
- The service which was tracked to paint a picture of current LBS use (*Foursquare*). Also, venues were created for each location if they did not exist before, eliminating a lack of checkins due to increased effort for the user in creating the venue).
- The way in which people were counted at the Lijnmarkt

Dependent variables were the following:

- The website usage of the retailers
- The social media usage of retailers
- The amount of checkins at the Lijnmarkt and the location these checkins occurred
- The number of people in the Lijnmarkt

Confounding variables were the following:

- Different design elements that could have influenced the websites' user interface, and hence my analysis
- The mood and availability of the retailers at the time of interviewing
- Technical problems in the *Foursquare* database at the time of tracking
- Time of month while counting people at the Lijnmarkt (salaries that had just been transferred, national holidays, et cetera)

Some of these variables could not be controlled, but others such as the timing of the people count were taken into consideration by picking several counting moments and taking holidays into account during analysis.

3.5.2 Operationalizations

To provide an accurate description of shopping behavior and internet/social media use by both retailers and consumers a case study was made of the Lijnmarkt which conforms to the elements of importance in the main research question.

Conditions of importance that were taken into account in choosing to focus on the Lijnmarkt were:

- It is a street in the city center of Utrecht
- It is frequented by a lot of consumers
- It has a diversity in venues
- It is not too large, as to be too massive to conduct research in

The choice to do an analysis of the internet use of the retailers was to relate this information to the theoretical points of view that discuss the internet as a variable in the decrease in offline shopping, and to review whether a proper use of the internet could have positive effects on retail.

3.5.3 Instrumentation

No previously used instrumentation was applied in this research, though all methods were thoroughly discussed within the research lab.

The list compiled about the stores was simply to provide extensive factual data about their location, product/service offerings and general context.

Analysis online presence

To analyze the websites I used a descriptive method. Elements I paid attention to were;

- Overall website design
- Whether it was a generic brand page or store specific
- The information available on the website
- Opening hours
- Contact information
- Product information
- Product lines
- Discounts
- Store details
- Store events
- Web stores
- Last update
- Frequency of updates

While analyzing their social media use I paid attention to:

- Last update
- Frequency of updates
- Topic of updates
- Product related
- Store related
- Subject-related (the *Vitamin Store* giving health tips via *Twitter*, for instance)

Interviews retailers

The interviews with the retailers were very short and were not descriptive in nature. Retailers were asked whether they knew what social media are and if not I immediately moved on to providing them with a description of a location-based service (this description (in Dutch) can be found in the appendix) and asking them whether they would be interested in putting deals on a platform as described.

If retailers responded to the first question with a 'yes' a few questions concerning social media (examples, whether they used them and how, etc) were asked.

3.5.4 Participants

Retailer interviews

The retailer interviews were held in four stores across different disciplines, i.e.

- *Van Pommeren* (kitchen appliances)
- *Noahs* (childrens store)
- *Lien & Giel* (women's fashion)
- *MBT* (shoe store)

These stores were chosen because they all have a different type of business and perhaps that would provide me with different interview outcomes. Originally, the plan was to interview the proprietor at *Bond & Smolders* as well as this is a different category as well (coffee and baked goods) and they seem to be checked into via Foursquare a lot, but unfortunately the owner of this story was away on business during the time of the research.

Counting people at the Lijnmarkt

Participants to the Lijnmarkt count were simply anybody who walked by during the time of counting. The only people who were excluded from the count were:

Employees of the food/drink related venues such as de Witte Ballons and Bond and Smolders, who were simply serving people sitting at terraces
People who were biking past

Men and women were counted, age was not taken into account. This made it somewhat difficult concerning young children, because they will obviously not check in using their children-safe Android devices. However to keep from making assumptions concerning age, shopping behavior and mobile phone possession age was ignored.

People who passed by several times were counted each time they walked past, as the researcher might not recognize everyone who walks past every time, plus they had been at the Lijnmarkt several times, so technically their presence several times a day should not matter.

3.5.5 Material

The website analysis was all done using the *Firefox* web browser.

Details concerning the stores were captured in an *Excel* sheet using *Google docs*.

The interviews were recorded using an iPhone

The description of the LBS was printed out on paper and shown to the retailers

Counting of people in the Lijnmarkt was first done by tallying with pen and paper

Later on an iPhone was used to register the number of people

All data was written down in word processing software *OS X Pages*

Afterwards all data was styled using *Adobe InDesign*

Foursquare count

To track the checkins at the Lijnmarkt the API of *Foursquare* was used by Erik Hekman at the research lab to build a database that would look up the amount of checkins for each venue every few minutes from the seventh of April until the 18th of May. The amount of queries was limited due to *Foursquare's* own restrictions regarding their API.

3.5.6 Procedures

Internet analysis

Website URLs were located first and copied into the Excel file. The same for their social media pages. After everything was listed I started visiting the websites and looking for all the points described in section 3.4.3. All the details concerning their internet presence was written down in tables which can be found in the appendix.

Counting people

To count men and women at the Lijnmarkt I positioned myself on the terrace of the *Witte Ballons*, which is located at the city center-side of the street. From this angle I also had a view of the one side-street in the Lijnmarkt leading away from the street.

From the *Witte Ballons* you just miss the end of the Lijnmarkt on the canal-side, but due to the excellent location of the *Witte Ballons* and the small chance of people walking in from one side and leaving it again before entering the visible portion of the street, I decided to stick to that side of the street while counting.

The actual counting itself was conducted in the following manner; the three point area on the left side of the *Witte Ballons*, the right side of the *Witte Ballons* and the side street leading away from the Lijnmarkt was considered the counting area. Whenever someone entered it from the left people were counted, when they entered it from the right and did not leave via the side street they were counted, and when they entered via the side street and turned right into the Lijnmarkt they were counted. To better illustrate this I created the following visual (see next page):

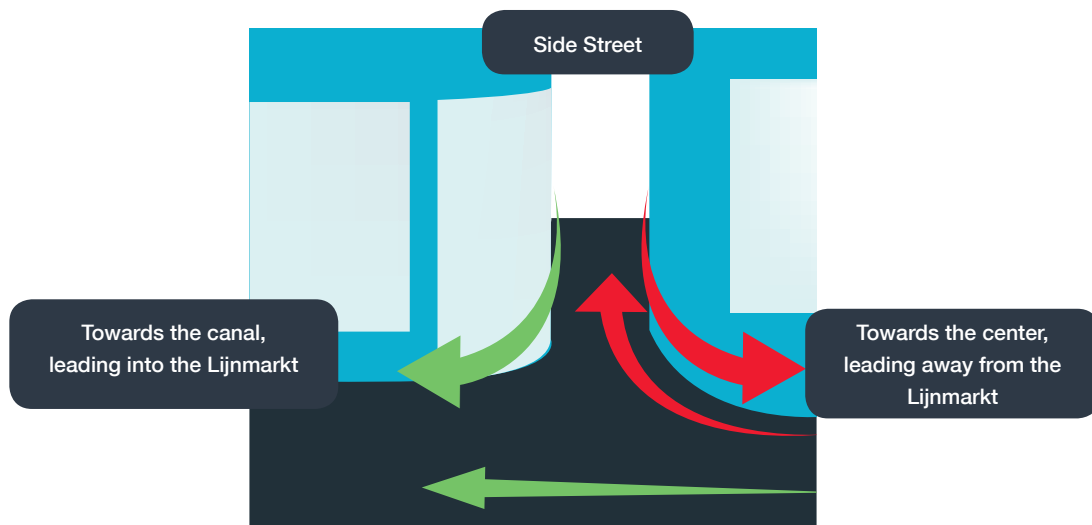


Image 14. Counting people in the Lijnmarkt

Besides the direction of the passers-by, people on bikes were discarded as the chances of them simply biking along were fairly large. People walking through the street with a bike in their hands were counted however, as the barrier to put down their bike and entering a store/checking into *Foursquare* would be fairly low.

People entering *Bond and Smolders* (which is located exactly across the Witte Ballons) were counted separately, but no distinction was made between men and women entering this shop.

The counting was conducted at three different points in time; a Tuesday afternoon, a Thursday night (also known as 'koopavond' in Dutch, which roughly translates as buying night, in which most stores stay open until about 21.00 instead of closing down around 18.00), and a Saturday. Counting was conducted for a period of three hours each time, assuring a fair amount of the day would be registered.

3.5.7 Data collection

Lijnmarkt list

All details concerning the Lijnmarkt were added to an *Excel* file which was kept in *Google Docs*. The internet analysis was compiled in an *OS X Pages* file, and in the end everything was compiled and styled into an *Adobe InDesign* file. Both the *Pages* document and the *InDesign* document were saved on my hard drive, a loose hard drive and synced to *Dropbox*. Data can be identified by their Lijnmarkt address number, their venue name, et cetera.

Lijnmarkt interviews

Data concerning the Lijnmarkt interviews was stored, as mentioned before, by voice recordings on my iPhone and synced to iTunes.

The interviews were transcribed in *OS X Pages*, then styled using *Adobe InDesign*.

Data can be identified by the name of the venues that were added to the interviews, retailers themselves were kept anonymous.

Counting people at the Lijnmarkt

To count the people walking through the Lijnmarkt, first simple tallying via pen and paper was used. This turned out to be tricky due to the amount of people walking past, so after the first point of counting I moved on to using an iPhone app called *Tap & Count LE (Light edition)*, which works in much the same way as an analogue counter. One simply taps the counter on the phone's screen, and it registers the count. I created a double counter system to count both males and females walking through the Lijnmarkt. Specific subjects can not be identified besides being male or female.

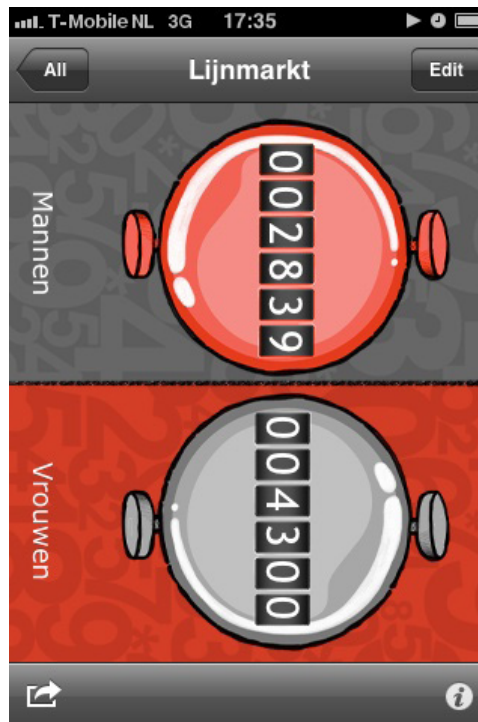


Image 15. Screenshot of the Tap and Count LE application after its use on 07-05-2011

Customers walking into *Bond and Smolders* were still simply tallied via pen and paper. After the counting was done the data was entered into a pages document and saved to both my hard drive, a loose hard drive and synced via *Dropbox*.

Foursquare count

All checkins were saved to a database. This database was exported to .csv files which could be opened in *Excel*. The original .csv files were stored on my hard drive and to *Dropbox*.

3.6 Questionnaire

To test consumer preferences both for location-based services as for mobile marketing, fellow Crossmedialab graduate Thomas Vente and I created a questionnaire.

3.6.1 Research design

The independent variables in this research were the questions that were asked. Every participant was presented with the same questions, with some questions being skipped if they did not meet the correct criteria for all the questions (for instance if they answered 'no' to owning a smartphone).

The dependent variables were the answers given by the participants (especially concerning open questions), and their demographic. Also, participants had the option to drop out of the questionnaire if they desired, these questionnaires have been discarded from the final results. Confounding variables could be for instance people who did not understand the questions that were asked. In the first version of the questionnaire user preferences concerning mobile marketing was asked, for instance, but it was not specified clearly enough what their preferences were concerning. After receiving a complaint the question was edited to be more clear, thus controlling this variable.

Randomizing factors in spreading the questionnaire were spreading the questionnaire via as many means and people as possible, thus creating a broad spectrum of answers. Besides spreading the questionnaire among family and friends we spread the questionnaire using various social media such as *Twitter* and *LinkedIn*, the Digital Communications' students *Wiggio* page and finally we tried to spread the questionnaire in the Utrecht city center. To ensure randomization we asked every fourth person who walked past us in the street to participate.

3.6.2 Operationalizations

To make sure the service I proposed would be of interest to consumers, and thus adhering to the STOF model (mostly with a focus on the S and the F) I compiled a list of questions concerning the various factors of an LBS.

The mobile marketing questions were designed to answer the research questions by Thomas Vente, but they could help me as well by indicating the level of marketing one could use when directing an LBS in a commercial setting towards consumers.

3.6.3 Instrumentation

For the mobile marketing part of the questionnaire, use was made of a previously existent questionnaire by Jayawardhena et al. (2009) in their article "Antecedents to permission based mobile marketing: An initial examination."

The questions concerning LBS were created using the STOF and UTAUT model as a guideline. The questions were all checked by members of the research group before being spread among the public.

3.6.4 Participants

In our questionnaire we received 102 unique responses. 314 people viewed our questionnaire (though the researchers may have been counted in this instance a few times as well by spreading it et cetera), 116 people started working on it and in the end 14 people dropped out of the questionnaire before finishing.

We tried to spread the demographic of the participants in the questionnaire as much as we could. This turned out to be difficult. Spreading the questionnaire using social media and via friends/family and acquaintances was enough to generate a fair number of responses, but trying to spread the questionnaire among the shopping audience turned out to be a bit more problematic. In two hours of asking people to participate only three people responded positively. Because of this, the majority of responses will most likely be from people in our own circles, i.e. students aged 20-30. Thankfully, Utrecht is a university city and the people in this group would be in the target audience for an LBS.

3.6.5 Material

Question Pro to enter and analyze our questionnaire, both for computer use as on the iPad
An iPad to have people enter the questionnaire on in the street

3.6.6 Procedures

The questionnaire was live for a week in May and spread through *Facebook*, *Twitter*, *LinkedIn*, *Wiggio* and through word of mouth. Besides that we managed to elicit three responses by asking people to fill out the questionnaire in the Lijnmarkt in Utrecht.

The questionnaire consisted of 23 questions, mostly closed but some open ended questions, and seven questions on mobile marketing were put into a Likert scale.

It took an average of four minutes for our participants to complete the questionnaire.

3.6.7 Data collection

Data entered into the questionnaire was saved onto an online database. The first column in the questionnaire results feature a unique response ID by which participants can be identified.

The data was exported to an .pdf file which featured the overall results of the questionnaire, and Excel files which featured the full raw data of all responses, including the answers to open-ended questions. All these files were stored like the data from the other research; onto my hard drive, on a separate hard drive and in the cloud using *Dropbox*.

3.7 Phases

The different phases of my research consisted mainly of the literature research, the interviews, preparing and conducting the workshops and the Lijnmarkt case study. After all this was done all my time was spent analysing and writing. The full planning of the research can be seen below.

Month	Activities
February	• Research proposal • Start literature research • Design interview protocols • Research plan/ICM plan of action
March	• STOF workshop Kees Winkel • Send out interview invitations • Interview Dennis van der Vliet of <i>Feest.je</i> • Concept Applied Research paper ICM (literature research) • Discussion options workshops Kees Winkel & Dennis van der Vliet • Interview Maarten Clemens of <i>Tomtom Places</i>
April	• Write LBS blogpost • Applied Research paper • Add coordinates to Lijnmarkt list • Design workshops with Kees & Dennis • Create interview questions retailers • LBS Theme day (including workshops) • Create questionnaire with Thomas Vente • Get questionnaire approval Lab • Count people at Lijnmarkt • The Next Web Conference
May	• Counting people at Lijnmarkt • Counting people at Lijnmarkt/spread questionnaire/interview retailers • Start analysis <i>Foursquare</i> data and questionnaire data • Concept version thesis

Table 7. Planning research

In my results I will try to present first and foremost the results of the research that was conducted towards answering the question presented in chapter 2:

“What type of location-based service can draw consumers into stores in the Utrecht city center and create value for both the consumer and the retailer?”

Related to this question are the four key areas as defined in the introduction of this report.

1. What is a location-based service (LBS)?
2. How are online and offline shopping related?
3. Is there a (current) market for an LBS in Utrecht, and can it attract new customers in store?
4. What can be the added value of LBS for consumers and retailers?

The first two areas of research, namely the definition and explanation of an LBS and the relation between on- and offline shopping were answered by my literature research, which can be read in chapter 1; the theoretical framework. The other two areas of research I tried to answer in my practical research, the results of which will be discussed in the sections below.

4.1 Interviews

The full interview transcripts which I conducted with Dennis van der Vliet and Maarten Clemens can be found in the appendix. In this section I will summarize their conclusions based on the four service elements as defined by Bouwman et al. (2008).

4.1.1 Interview Dennis van der Vliet of Feest.je

Service

The target audience for *Feest.je* was explicitly not defined. Any and all people are welcome to use the service. In practice Dennis found *Feest.je* was mostly used by young men with some technical skills. Besides that the tendency of *Feest.je* users was to want to share their experiences, their life, with others.

The service is used as a means for a few ends; to share ones experiences, to enjoy the game element, to keep a diary of sorts and in the future he would like to see the deals become an important element as well.

Feest.je is unique in that it is a local business, they use the Dutch language, and in that respect give it a very personal feel. The service is well designed, and its local look and feel is appreciated by the users.

Feedback on the service is collected via email and *Twitter* responses, though collecting feedback via mobile applications is hard as it is difficult to create a good user interface in providing feedback on such a small screen.

Technology

Users can share an atmosphere rating, photographs of the location/party and comments on checkins. Data concerning the users is saved, but only their home city, whether they are male or female, name and email address. Users opt-in to use the service, so this is legal. None of this data gets sold or forwarded to third parties. The service does not require a lot of data transfer, so in most cases it should work fairly fluently.

The service can run on *iPhone*, *Android* and *Blackberry* devices. Designing the service for different operating systems, especially Android with its large range of devices and different screen sizes can be tricky, so that is something that requires some consideration.

Organization

Of course financial backers are needed, technology adept personnel that can code the application, and people like Dennis himself. You always need to stay in the field, and talk to people, which is why he is happy to help students such as myself because the research results they get from cooperating with students are taken into account as well. Network providers are not something of real concern for Dutch applications as they do not get a say in what gets transferred on their systems. If users opt-in to use the service there are no real privacy laws to take into account either.

Financial

For now no real business plan is in effect. The service is free to use for everyone, no real money is being made within *Feest.je* as of yet. Users do not want to pay for content created by other users. The plan is to start generating income via deals in the future.

4.1.2 Interview Maarten Clemens of TomTom Places

Service

Mr. Clemens is a research engineer for *TomTom Places*, and their first order of business is to collect POI's, or Points of Interest. By collecting the venues and enriching the data with information about that venue they want to provide a *Yellow Pages* service. For now the data is accessed only via their internet address, no mobile website is available. The idea is to extend the service to a mobile application for the *iPhone* and to integrate the system on their navigational hardware in the near future.

The choice for *iPhone* was made because around the time they started designing this service the *iPhone* was most popular among Dutch consumers and they would only need to take one operating system into account.

Competitors to the *TomTom Places* service would be Yelp, the Yellow pages and other phone providers such as *Nokia*.

Last year their website had over 2 million search queries, which is fair, but they plan on going global soon so those numbers should increase a lot.

According to Clemens, the power in *TomTom Places* is their database; the maps they own, the amount of users that already have *TomTom* navigation hardware, and the info they purchased from companies like the *Yellow Pages*.

Technology

The *TomTom Places* service can be installed on their hardware with a software update. Besides their navigational software the *TomTom Places* service is iPhone OS specific.

Organization

Right now most of *TomTom Places* is organized from within *TomTom* itself. Their research team collects all the data concerning companies by purchasing companies, conducting website 'crawls' (searching through company websites for relevant information) et cetera. User behavior when using the service does not get registered yet, though this could be an option if users opt in and they think of an algorithm to use this information to create a service that is better suited per person. For now there are no plans to do so.

Financial

The *TomTom Places* service is free, though companies can pay a fee to get a higher spot in users' search queries. The *iPhone* application will be free as well, though users can opt to purchase an enriched version of the app for a fee, or the complete *TomTom* navigation service including *TomTom Places* for an even higher amount.

The group of students seemed to be truly interested in the topic and participated with great enthusiasm. Most seemed to apply a point-based game system of sorts, either through time spent in the Lijnmarkt, through simply checking in, or by the amount of 'friends' that checked in at the same time.

Reward systems generally included activities such as parties organized by the street, the use of a stylist for a single day, a photo shoot that would be published in a magazine, et cetera.

Shopping GUIDE

Shoppingguide stelt een leuke dag voor je samen gebaseerd op wat je nodig heb en waar je zin in hebt in een stad naar keuze.

Op deze manier sluit je winkelroute het beste aan bij je winkellijstje.

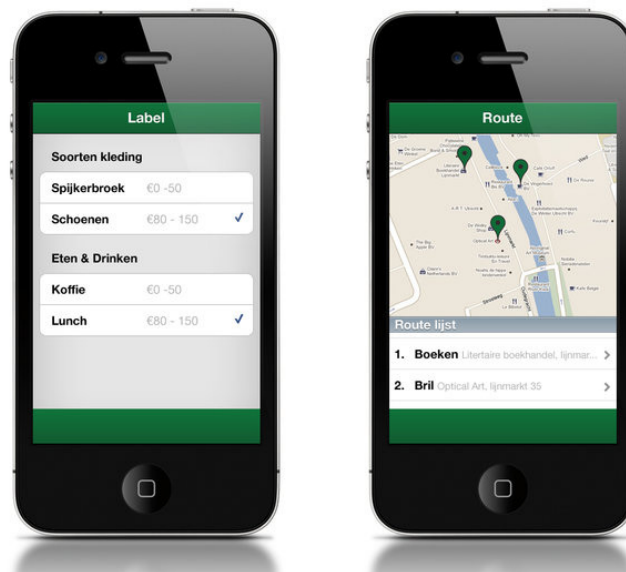


Image 16. Example of one of the mock ups produced during the workshops

Critiques concerning the workshops included a lack of time to come up with a proper idea, the fact that they were expected to design something using the design files for an iPhone application and annoyances concerning the fact that they were not allowed to use discounts to lure people to the street.

The full summary of the workshops including the concepts thought up by the teams and photographs of the day can be found in the appendix.

4.3 Case Study Lijnmarkt

List Lijnmarkt

Almost all of the venues in the Lijnmarkt had some form of web presence, albeit their own personal web page or a generic web page. Of the 46 venues only six were not to be found online.

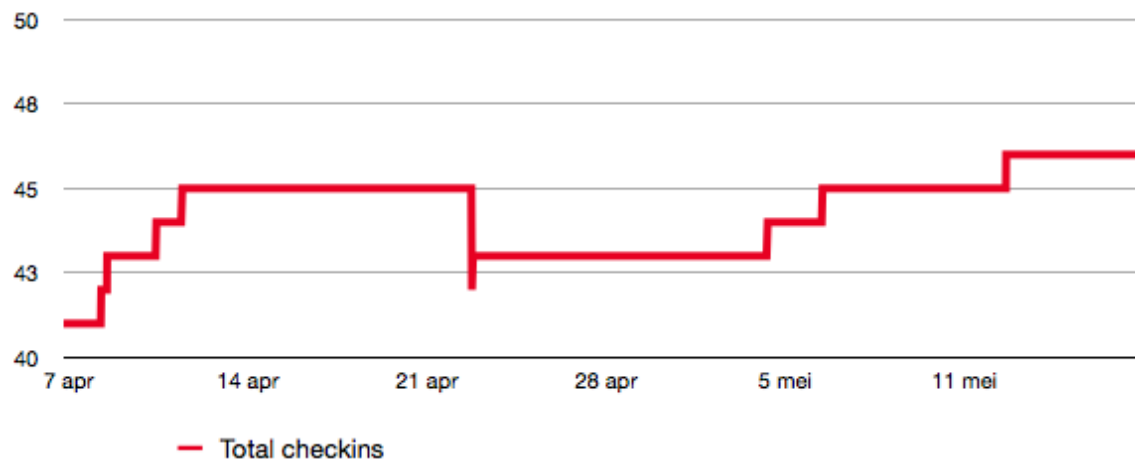
Social media, however, is not something that is very prominent in the Lijnmarkt. There were only six *Twitter* accounts, most of which were generic brand *Twitter* feeds. Eight *Facebook* pages were found. Most social media in use by the Lijnmarkt feature news items they also post on their website and are simply used as a one-way communications channel. One of the *Facebook* pages (the one maintained by *Culturemix*) had not been updated since the winter of 2010. The only retailers that seemed to make active use of social media were *Lien & Giel, Tailors & Co* and *Colori*.

Current location-based service use

Of the 46 venues at the Lijnmarkt, 27 venues were created on the *Foursquare* platform by the researcher. The amount of *Feest.je* venues were also checked, and only the *Witte Ballons*, *Bis* and *Cafe de Postillon* (all food and drinking venues) were available on this platform, the rest had to be created by the researcher.

Nobody in the Lijnmarkt had deals set up on location-based service platforms such as *Foursquare* or *Feest.je*. During the research nobody set up any deals either, so I was unable to see whether this had any influence on the amount of customers in-store or general customer satisfaction.

The *Foursquare* count yielded some strange results. The venue that had the most checkins in total was pastries, cake and coffee shop *Bond & Smolders*, which had a total of 41 checkins when we started keeping track (on the seventh of April), and 46 by the time we stopped (on the 18th of May). However, on the 23rd of April the total amount of checkins dropped from 45 to 42 and considering this is the total amount of checkins at that venue, that should be impossible. The total amount of checkins at *Bond & Smolders* can be seen in the graph below.



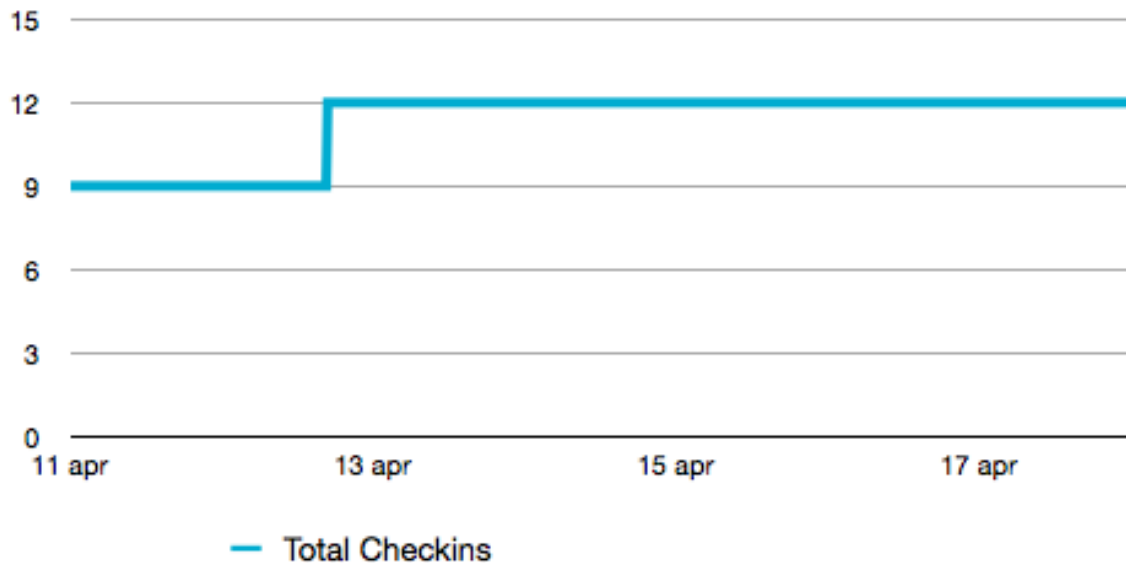
Graph 1. Total checkins at venue *Bond & Smolders* 07-04-2011 until 18-05-2011 on *Foursquare*

The same drop, from four to three checkins this time, occurred at *Eleganza*, but this happened on the 22nd of April. This drop occurred at three more venues, all on a different day and all at a different time of day, all with a different drop in number. One explanation for this could be that the old data about a venue gets deleted after a certain point in time, but this would need to be researched further.

Ignoring this (for now) inexplicable drop in total checkins at those five venues, however, only five venues at the Lijnmarkt reached a total exceeding one digit, none of which exceeding two digits (the highest being *Bond & Smolders* with 46).

The average number of total checkins at the Lijnmarkt was 4,3 on May 18th, though 15 venues were not checked into at all. During the 42 days in which the *Foursquare* checkins were tracked, only eight venues were checked into. All checkins occurred during the day.

When there were several checkins at a venue these usually occurred around the same time indicating several people checked in together. When looking at the total checkins at clothing store *Scotch & Soda* in the week 11-04-2011 - 17-04-2011 for instance (see graph 2), three checkins occurred. These all occurred at the same point in time, indicating three friends checked in together.



Graph 2. Total checkins at venue *Scotch & Soda* 11-04-2011 until 17-04-2011 on *Foursquare*

On the days of counting people at the Lijnmarkt (26/04, 07/05 and 12/05 2011) there were between 3000 and 7000 visitors to the Lijnmarkt (further detail can be found in the appendix). *Bond & Smolders* customers were counted on the 26th of April and the 7th of May as well (they were closed on the 12th during the evening hours). On the 26th between 13.00 and 16.00, 82 people walked into *Bond & Smolders*, on the 7th of May 215 people walked into the store (it was the day before Mother's day, this could have something to do with the large increase in customers). During these two days nobody checked into the *Bond & Smolders* venue on *Foursquare*.

Retailers preferences

Four retailers were interviewed concerning their preferences in social media. The transcript of these interviews (in Dutch) can be found in the appendix. Of the retailers I spoke to, half did not know what social media was and were not too interested in using it.

Respondents were presented with the following description (translated from Dutch):

"Imagine a mobile service with information on all the shops in Utrecht. You can look up which products you can buy where, read and leave behind tips. Also, when you are in the city center you can indicate you are there (check in). Every time you do this you will receive points. You can exchange your points for great deals and prizes in the city."

The retailer at kitchen appliances store Van Pommeren said (translated from Dutch):

"What am I supposed to do with this? I guess it would have to prove its worth first."

The other two respondents (from *Noahs* and *MBT*) were already using social media, though it obvious they themselves were not too versed in it and left the updates to others. When reading the description of the LBS, however, *MBT* said they might be interested in using the LBS as another channel to let customers know about their sales, and *Noahs* was actually very enthusiastic, saying they believed in a service like this over other forms of social media.

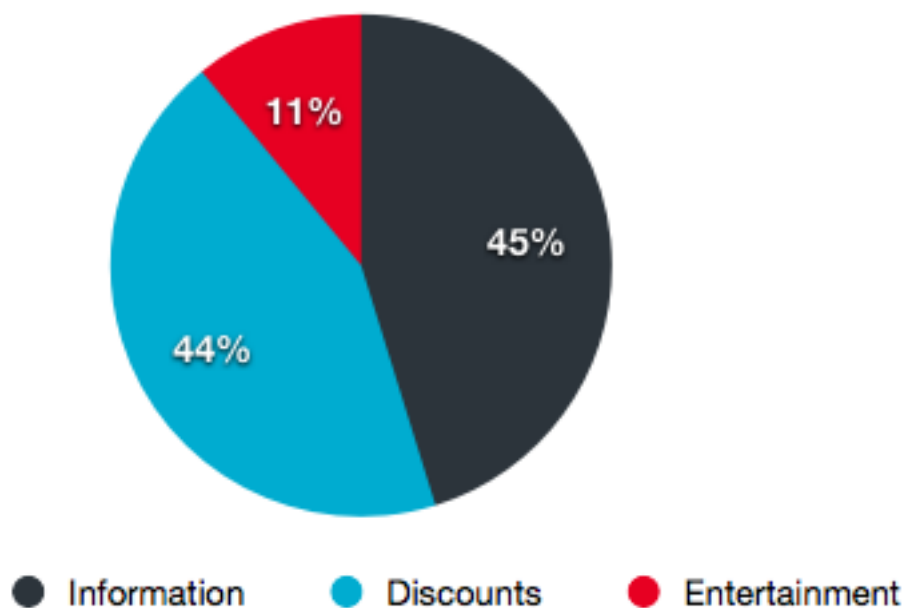
As stated in chapter 3; methodology, the survey Thomas Vente and I conducted elicited 116 responses, of which 102 complete. The division male/female was about 50/50.

Most respondents were doing or completed a HBO studies and were between 20 and 30 years of age, which was to be expected as the questionnaire was mostly spread among the researchers' personal circles.

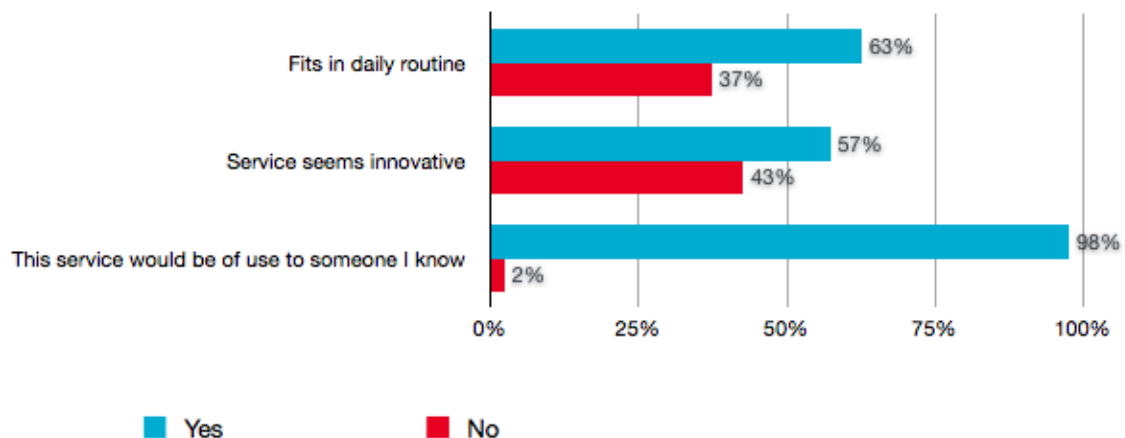
Almost eighty percent of the respondents owned a smartphone, over forty percent of which owned an iPhone.

Respondents were given the same description of an location-based service as the retailers (see section 4.3; retailer preferences). Based on this description respondents were asked what they thought they would gain from this service, whether it fitted in their daily routine, in which setting they would use this service and whether they thought it was innovative. They were also asked whether they thought this service would be useful to people they knew. Further questions included whether they would pay for this service, how they felt about personalization and behavior tracking, and whether advertisements would make the service less desirable.

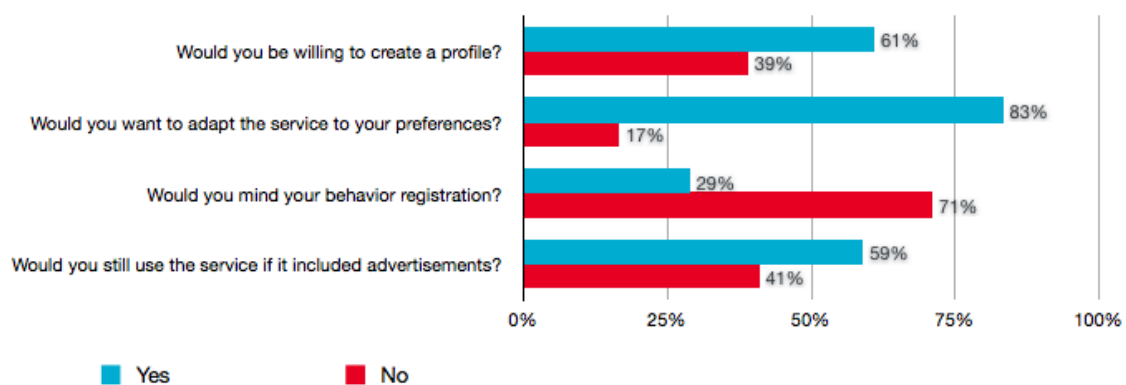
The full set of responses (in Dutch) can be viewed in the appendix, but some results are summarized in the charts below.



Graph 3. Percentage of perceived benefits from the service



Graph 4. Attractiveness described LBS



Graph 5. User preferences for described LBS

Participants were generally positive about the service and thought it would at least benefit someone they knew, if they would not use it themselves. Users were also fairly positive about creating a profile, would like to be able to adapt the service to their preferences and would mostly not have any trouble with behavior registration or advertisements.

Concerning this application participants were also asked two open questions; if this service reminded them of something already in existence and in which situation they might use this service.

To the first question 22 people responded by mentioning *Foursquare*, five people mentioned *Groupon*, four people mentioned *Facebook Places* and three people mentioned *Feest.je*. Other answers included *Google hotspot*, *Yelp*, *Gowalla* and *Appie*.

To the second question most people responded they would use it while they were shopping in Utrecht, though several people indicated the application would have to be easy and quick to use because otherwise it would not be worth the effort. Another, often mentioned, preference was the ability to search for products in a city. Discounts or other rewards that are 'worth the effort' were also mentioned as being prerequisites to using the LBS.

In the following chapter I will discuss the results of my research in the light of earlier published work. Based on the available information I will draw conclusions concerning my research questions.

5.1 Research questions

The first two areas of my research, i.e. “What is a location-based service (LBS)?” and “How are online and offline shopping related?” I answered in the first chapter of this report; the theoretical framework. A location-based service is a service that used the location of a terminal and/or its user to provide the user with information specific to his or her context.

Concerning shopping; in recent years the paradigm of shopping has changed. Consumers are better informed, can get items and services ordered straight to their homes and do not necessarily need to go to stores in the city center anymore. Retailers are trying to make the best of the internet and use it as an informative tool or they set up web shops. In most cases this does more harm than good to their offline sales channel; the store.

Mobile phones are being used by consumers to purchase products, but more often they are used to find information and make in-store decisions by consulting with friends and family.

Retailers could use this tendency to their benefit if a careful plan is drawn out and a new channel (for instance an LBS) is kept up to date relevant, and updated in line with their other communication channels such as websites, brochures and social media.

The second two areas are:

“Is there a (current) market for an LBS in Utrecht, and can it attract new customers in store?”

and

“What can be the added value of LBS for consumers and retailers?”

Concerning the market: I believe there might be one in the future but the timing isn't exactly ripe yet. Right now there are too many players in the field and not one service has shown to have the most promise and the right elements to be of use in retail.

Besides the saturation on the offer side of the market; the demand side is wanting. Most participants in the research were unfamiliar with location-based services. When presented with examples, some knew what was meant but still most participants did not use these services, especially in a retail setting, yet. Interest was shown, but only if a service offered a few elements. Based on the interviews, the workshops and the questionnaire important functionality seem to be as follows; , information; navigation, store location, product lines, and especially: deals on offer/discounts.

Other attractive elements for users include:

- a well designed, quick and easy to use interface
- Dutch as the main language
- the option of having some personalization and personal profiles

Current examples of location-based services include, among many others, *Foursquare*, *Gowalla*, *Feestje*, *Tomtom Places*, *Shopkick* and *Placecast*. These services offers the following factors:

- offer of relevant information (surroundings, navigation) tailored to the user
- a gaming element
- a personal diary

- sharing experiences
- option of deals/discounts

For now I believe there are too many services around, though, and most of them only have footing in the United States. A platform like *Feestje* does have a strong advantage through its local setting, but its focus is not enough on shopping and retail to be of real interest to the shopping industry as a whole at the moment. In the long run I do believe it could add to a successful marketing strategy, though. For now, the focus should be on dining/drinking areas such as bars, cafés and restaurants, as those are the spots most people check into in an idle moment.

The network in Utrecht and the spread of smartphones with GPS capabilities is sufficient to support an LBS. Focus should be on iPhone and Android devices as these have the highest market value in the Netherlands. Network providers are not of real concern as they do not have a say in the data that gets transferred across their networks. The Dutch law is not a real issue either, as long as users opt in to use a service and no illegal data (child porn, for instance) gets transferred the most important areas are covered.

Developers are of importance in an LBS as technical problems are still a recurring phenomenon. As stated before, however, I believe setting up a new service would be a mistake. The money for an LBS should come from the retailers themselves, as they would be using the LBS to set up another channel of communications with (possible) customers. Payment could be on a subscription basis. Another option to finance the LBS would be advertising on the platform, as most users indicate advertisements would not be a reason for them to stop using the product.

5.1.1 Location-based service concept

The answer to the research question as defined in chapter 2, i.e.:

“What type of location-based service can draw consumers into stores in the Utrecht city center and create value for both the consumer and the retailer?”

can be best answered by using the location-based service concept I presented to the participants in my research, as I believe this would be the most successful.

“Imagine a mobile service with information on all the shops in Utrecht. You can look up which products you can buy where, read and leave behind tips. Also, when you are in the city center you can indicate you are there (check in). Every time you do this you will receive points. You can exchange your points for great deals and prizes in the city.”

The most important element in this location-based service is the information, which should be up to date, well designed and easy to access. Without those elements the ease of use AND the perceived ease of use will be too low for consumers to use the product, and inertia will set in (see image 12).

More specifically, important is that this service has an extensive catalogue of all the stores and the products they have on offer/deals they are offering. Without this information, presented in a well designed manner, there is no real added benefit of a service like this in a shopping setting, as this is the element most consumers defined as being the factor that was made the service of added value. Information was even regarded as more important than possible discounts or deals. Another element, already discussed in the theoretical framework, is the social element. Allowing consumers to share and create content on the platform will make the more fun and attractive to use. In this instance, the platform *Feestje* is on the right track.

5.2 Reflection on the implication for the theoretical framework

The results of my own research were fairly in accordance with what I encountered in theory. One thing that struck me was that not everybody minded their behavior being tracked while using an LBS, which contradicts the notion that consumers, especially millennials, would hate for that to happen as it would feel as if it were a severe intrusion of privacy. Especially considering the mobile phone is regarded as such a personal and cultural object. Another item of interest was that both *Foursquare* and *Feestje* define the 'game element' as being one element that attracts users and keeps them interested. The game element would probably be of more interest to the consumers in the United States, however, as their culture is more ingrained with a competitive element. Most LBS users in the Netherlands I spoke to get bored with the game element in the long run and preferred the service to have other elements (information and discounts being the most important).

5.3 Reflection on improvements for the study

Improvement to the study could be achieved in multiple ways. First off, a larger portion of the Utrecht city center could be tracked, not just one street. More retailers could be involved, and one could conduct a case study of a single or a few stores in collaboration with the retailers themselves. One would conduct an analysis of their internet use and store performance, implement improvements where needed based on the available information, and conduct another analysis of their store performance and the success of the implemented changes later on. This should probably be conducted across a longer period of time as changes like these need time to take effect.

5.4 Suggestions for further research

A pilot study of an LBS as described in section 5.1.1. would be of great use in determining whether this could be a success in a retail setting. Furthermore, more research could be done in LBS user interface and how much it effects the use of it across different target audiences and mobile devices. Finally, as discussed in the results, there were some unexplained dips in total checkins on the *Foursquare* platform. To provide a better analysis of the current use of LBS in Utrecht this would need to be researched as well. Besides that, in section 1.1 'Decline of shopping in city centers and its consequences for retailers' I quoted Van Vliet and Huibers (2010) in which they state multiple channel use leads to more active customers and a higher satisfaction rate. Based on these comments, once an LBS is set up, research should be done into customer satisfaction, implications for competition and channel cannibalization.

6. References

34 procent van de Nederlanders heeft een smartphone. (2011). Retrieved 03/31, 2011, from <http://www.telecompaper.com/nieuws/34-procent-van-de-nederlanders-heeft-een-smartphone>

Mobile life. (2011). Retrieved 04/01, 2011, from <http://discovermobilelife.com/>

Het grote The Phone House Android-onderzoek. (2011). Retrieved 04/01, 2011, from <http://www.phonehouse.nl/the-phone-house/?nieuwsid=89>

Online consumentenbestedingen stijgen naar €8,2 miljard. (2011). Retrieved 05/15, 2011, from <http://www.thuiswinkel.org/nederlandstalig/1-website/-nieuw/over-thuiswinkel.org/persberichten/2011/maart/online-consumentenbestedingen-stijgen-naar-82-miljard>

Bevolkingspiramide - leeftijdsopbouw Nederland 2011. (2011). Retrieved 05/23, 2011, from <http://www.cbs.nl/nl-NL/menu/themas/bevolking/cijfers/extra/piramide-fx.htm>

Wiktionary, the wiki-based open content dictionary. (2011). Retrieved 05/24, 2011, from http://en.wiktionary.org/wiki/Wiktionary:Main_Page

Millenial media campaign summary: Harbor hospital raises awareness with location-based mobile initiative. (2010). Retrieved 02/03, 2011, from <http://www.millennialmedia.com/wp-content/images/campaignsummary/MM-Campaign-Summary-Harbor.pdf>

Millenium media campaign summary: Hopenhagen goes mobile to drive awareness for climate change. (2010). Retrieved 02/03, 2011, from <http://www.millennialmedia.com/wp-content/images/campaignsummary/MM-Campaign-Summary-hopen.pdf>

Millenial media campaign summary: McDonald's McCafé mocha mondays go mobile with millenial media. (2010). Retrieved 02/03, 2011, from <http://www.millennialmedia.com/wp-content/images/campaignsummary/MM-Campaign-Summary-mccafe.pdf>

Millenium media campaign summary: U.S. census 2010 uses mobile to entice hispanic and african american participation. (2010). Retrieved 02/03, 2011, from <http://www.millennialmedia.com/wp-content/images/campaignsummary/MM-CampaignSummary-mccafe.pdf>

DICE 2010: "design outside the box" presentation. . (2010, 02/18/2010).[Video/DVD] G4TV.com. Retrieved from <http://www.g4tv.com/videos/44277/dice-2010-design-outside-the-box-presentation/>

MMA glossary. (2008). Retrieved 05/17, 2011, from <http://mmaglobal.com/wiki/mma-glossary>

Understanding mobile marketing, technology & reach. (2007). Retrieved 12/06, 2010, from www.mmaglobal.com/uploads/MMAMobileMarketing102.pdf

Visie op de historische binnenstad (2006). Utrecht: Platform Binnenstad Utrecht.

iPhone application costs. Retrieved 04/01, 2011, from <http://www.red-c.co.uk/products/iphone-app-development/costs>

Achterberg, E. (2010). *Smartphones in nederland; status, ontwikkeling, de toekomst*. Telecompaper. Retrieved from www.telecompaper.com/reports/summary.aspx?cid=r726421

Agarwal, A. (2007). *Average number of readers per blog*. Retrieved 05/10, 2011, from <http://www.labnol.org/internet/favorites/average-number-of-readers-per-blog/245/>

Ali, A., Wong, E., Meeker, G., & Gill, D. (2011). *The mobile shopping framework study: The role of mobile devices in the shopping process* The Nielsen Company.

Bard, A., Keen, A., Falkvinge, R., Scoble, R., & Lindzon, H. (2011). The Next Web Conference 2011. Paper presented at the Amsterdam. Retrieved from <http://thenextweb.com/conference/>

Bouwman, H., De Vos, H., & Haaker, T. (Eds.). (2008). *Mobile service innovation and business models*. Berlin: Springer-Verlag.

Boyd, D. (2010). *Interactieve expertsessie Danah Boyd*. Tilburg: Universiteit van Tilburg.

Burt, S., & Sparks, L. (2003). *E-commerce and the retail process: A review*. Journal of Retailing and Consumer Services, 10(5), 275-286. doi:DOI: 10.1016/S0969-6989(02)00062-0

Chen, P. -, & Cheng, J. Z. (2010). *Unlocking the promise of mobile value-added services by applying new collaborative business models*. Technological Forecasting & Social Change, 77, 678-693. doi:10.1016/j.techfore.2009.11.007

Clemens, M. (2011). In Kool E. (Ed.), *Interview TomTom Places*. Amersfoort:

De Groot, S. (2011). *2G- en 3G-netwerk vodafone verder verbeterd*. Retrieved 04/01, 2011, from <http://www.mobielinternetkiezen.nl/nieuws/135-2g-en-3g-netwerk-vodafone-verder-verbeterd/>

De Reuver, M., & Haaker, T. (2009). *Designing viable business models for context-aware mobile services*. Telematics and Informatics, 26, 240-248. doi:10.1016/j.tele.2008.11.002

Faber, E., & De Vos, H. (Eds.). (2008). *Creating successful ICT-services*. Enschede: Telematica Instituut.

Grenci, R. T., & Watts, C. A. (2007). *Maximizing customer value via mass customized e-consumer services*. Business Horizons, 50(2), 123-132. doi:DOI: 10.1016/j.bushor.2006.08.006

Haaker, T., De Vos, H., & Bouwman, H. (2006). *Mobile service bundles; the example of navigation services*. BLED 2006 Proceedings, paper 24

Huibers, T., & Van Vliet, H. (2010). *Centrumondernemen & media technologie*. Enschede: Saxion.

Indvik, L. (2010). *How the world is using cellphones [infographic]*. Retrieved 05/16, 2011, from <http://mashable.com/2010/12/03/cell-phone-mobile-infographic/>

- Jayawardhena, J., Kuckertz, A., Karjaluoto, H., & Kautonen, T. (2009). *Antecedents to permission based mobile marketing: An initial examination*. European Journal of Marketing, 43(3/4), 473-499.
- Kaasinen, E. (2005). *User acceptance of mobile services - value, ease of use, trust and ease of adoption*. (Doctor of Technology, Tampere University of Technology). VTT PUBLICATIONS, (566)
- Katros, V. (2000). *A note on internet technologies and retail industry trends*. Technology in Society, 22(1), 75-81. doi:DOI: 10.1016/S0160-791X(99)00035-4
- Kessler, S. (2011). *Mobile by the numbers [infographic]*. Retrieved 03/29, 2011, from <http://mashable.com/2011/03/23/mobile-by-the-numbers-infographic/>
- Kolsaker, A. A. (2009). *Mobile advertising: The influence of emotional attachment to mobile devices on consumer receptiveness*. Journal of Marketing Communications, 15(4), 267-280.
- Li, C. (2006). *User preferences, information transactions and location-based services: A study of urban pedestrian wayfinding*. Computers, Environment and Urban Systems, 30(6), 726-740. doi:DOI: 10.1016/j.compenvurbsys.2006.02.008
- López-Nicolás, C., Molina-Castillo, F. J., & Bouwman, H. (2008). *An assessment of advanced mobile services acceptance: Contributions from TAM and diffusion theory models*. Information & Management, 45, 359-364. doi:10.1016/j.im.2008.05.001
- Macintosh, G., & Lockshin, L. S. (1997). *Retail relationships and store loyalty: A multi-level perspective*. International Journal of Research in Marketing, 14(5), 487-497. doi:DOI: 10.1016/S0167-8116(97)00030-X
- Meeker, M., Devitt, S., & Wu, L. (2010). *Internet trends*. Morgan Stanley. Retrieved from http://www.morganstanley.com/institutional/techresearch/internet_trends042010.html
- Molenaar, C. (2009). *Het nieuwe winkelen*. Amsterdam: Pearson Education Benelux.
- Neslin, S. A., Grewal, D., Leghorn, R., Shankar, V., Teerling, M. L., Thomas, J. S. & Verhoef, P. C. (2006). *Challenges and opportunities in multichannel customer management*. Retrieved 03/09, 2011, from mba.tuck.dartmouth.edu/pages/.../JSR%20Paper%205.pdf
- Nierop, J. E. M., Leeflang, P. S. H., Teerling, M. L., & Huizingh, K. R. E. (2011). *The impact of the introduction and use of an informational website on offline customer buying behavior*. International Journal of Research in Marketing, (xxx), xxx-xxx. doi:10.1016/j.ijresmar.2011.02.002
- Patel, K. (2011). *What is a 'check-in,' anyway?* Advertising Age, 82(9), 40-40.
- Quercia, D., Lathia, N., Calabrese, F., Di Lorenzo, G. & Crowcroft, J. *Recommending social events from mobile phone location data*. Retrieved 12/28, 2010, from <http://www.cl.cam.ac.uk/~dq209/publications/recommending10quercia.pdf>
- Reijn, G. (2011, january 25). *Winkelcentrum wordt stiltegebied*. De Volkskrant, pp. 21.

- Reimers, V., & Clulow, V. (2004). *Retail concentration: A comparison of spatial convenience in shopping strips and shopping centres*. *Journal of Retailing and Consumer Services*, 11(4), 207-221. doi:DOI: 10.1016/S0969-6989(03)00038-9
- Rochet, J., & Tirole, J. (2004). *Two-sided markets: An overview*.
- Rotem-Mindali, O., & Salomon, I. (2007). *The impacts of E-retail on the choice of shopping trips and delivery: Some preliminary findings*. *Transportation Research Part A: Policy and Practice*, 41(2), 176-189. doi:DOI: 10.1016/j.tra.2006.02.007
- Scharl, A., Dickinger, A., & Murphy, J. (2005). *Diffusion and success factors of mobile marketing*. *Electronic Commerce Research and Applications*, 4, 159-173. doi:10.1016/j.elerap.2004.10.006
- Shankar, V., Venkatesh, A., Hofacker, C., & Naik, P. (2010). *Mobile marketing in the retailing environment: Current insights and future research avenues*. *Journal of Interactive Marketing*, 24, 111-120. doi:10.1016/j.intmar.2010.02.006
- Shankar, V., & Yadav, M. S. (2010). *Emerging perspectives on marketing in a multichannel and multimedia retailing environment*. *Journal of Interactive Marketing*, 24, 55-57. doi:10.1016/j.intmar.2010.02.003
- Sniderman, Z. (2010). *Why smartphone adoption may not be as big as you think*. Retrieved 03/29, 2011, from <http://mashable.com/2010/08/26/smartphone-adoption-trends/>
- Stalenhoef, L. (2010). *De hybride stad: Hoe locatie media context geven aan sociale media*. (Unpublished Master). Universiteit Utrecht, Utrecht.
- Steineger, S., Neun, M., & Edwardes, A. (2006). *Foundations of location based services*. University of Zürich: Department of Geography.
- Van der Vliet, D. (2011). In Kool E. N. (Ed.), *Interview Feest.je*. Amsterdam:
- Van der Vliet, D. (2011). *MarketingCommunicatie*. Retrieved 04/21, 2011, from http://hu.presentations2go.eu/P2GTV/viewer.html?path=ROADKIT5/2011/04/19/1/video_post.wmv
- Van Grove, J. (2010). *Mayor of Starbucks now gets discounts nationwide with Foursquare*. Retrieved 03/27, 2011, from <http://mashable.com/2010/05/17/starbucks-foursquare-mayor-specials/>
- van Vliet, H., & Winkel, K. (2010). *Location based services (LBS) for retailers in the heart of the city of utrecht*. Utrecht: Crossmedialab. Retrieved from http://crossmedialab.nl/files/Research_assignment_LBS.pdf
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). *User acceptance of information technology: Toward a unified view*. *MIS Quarterly*, 27(3), 425-478.
- Vente, T. (2011). *LBS theme day feest.je*. Retrieved 04/29, 2011, from <http://crossmedialab.nl/blog/post/159/lbs-theme-day-feest.je>

Virrantaus, K., Markkula, J., Garmash, A., Terziyan, V., Veijalainen, J., Katanosov, A., & Tirri, H. (2001). *Developing GIS-supported location-based services*. Proc. of WGIS'2001 – First International Workshop on Web Geographical Information Systems, , 423-432.

Weltevreden, J. W. J., & Boschma, R. A. (2008). *Internet strategies and performance of Dutch retailers*. Journal of Retailing and Consumer Services, 15, 163-178. doi:10.1016/j.retconser.2007.06.006

Wittenberg, W. (2011). *Social shopping is the toekomst*. Retrieved 02/04, 2010, from <http://www.frankwatching.com/archive/2011/02/03/social-shopping-is-de-toekomst/>

Yarow, J. (2011). *Chart of the day: Foursquare users doubled since Facebook launched places*. Retrieved 05/09, 2011, from <http://www.businessinsider.com/chart-of-the-day-foursquare-users-2011-3>

Zhang, J., Farris, P. W., Irvin, J. W., Kushwaha, T., Steenburgh, T. J., & Weitz, B. A. (2010). *Crafting integrated multi-channel retailing strategies*. Journal of Interactive Marketing, 24, 168-180. doi:10.1016/j.intmar.2010.02.002

The appendix consists of the following documents:

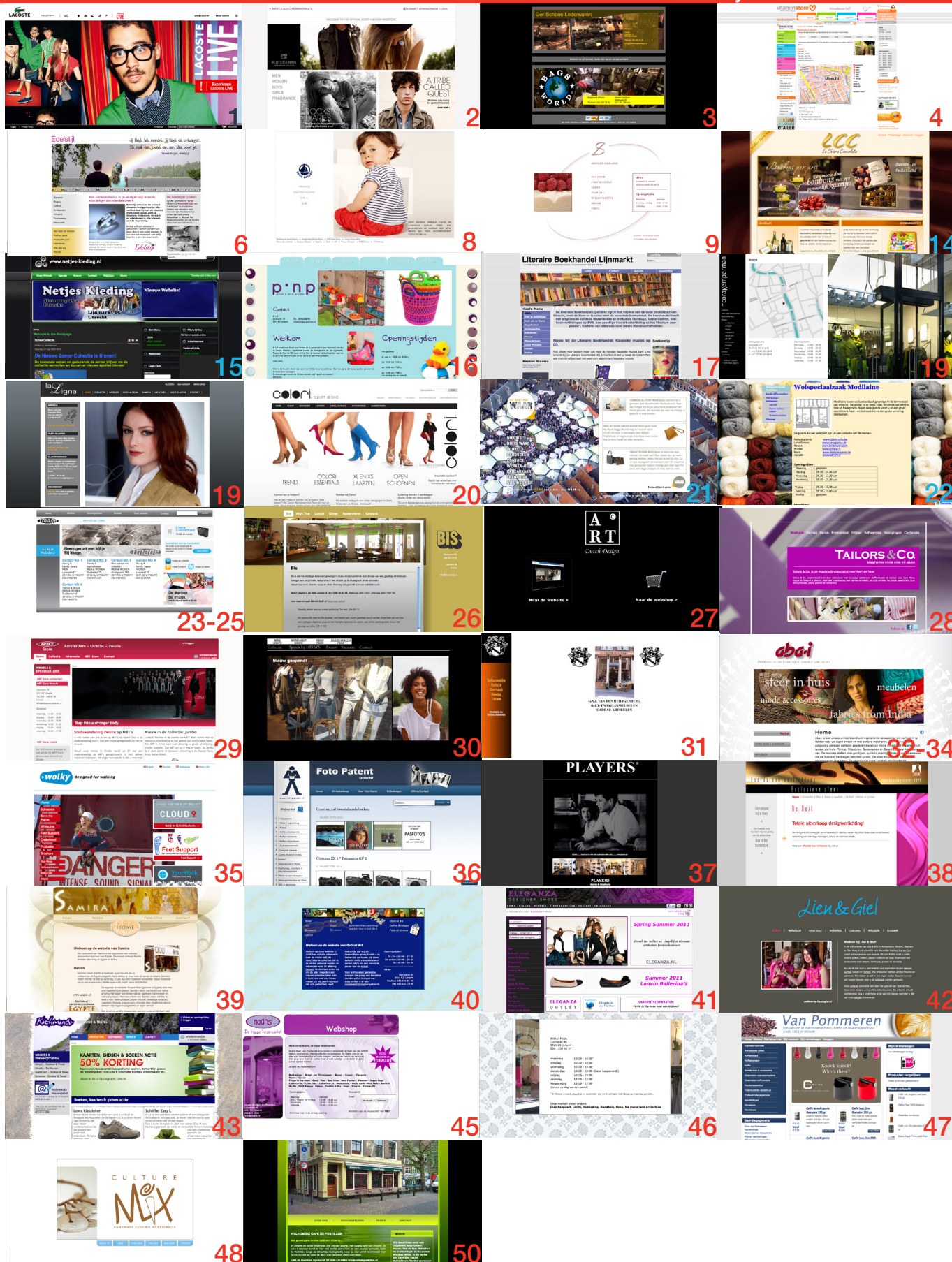
• The Lijnmarkt list	63
• The Lijnmarkt web presence analysis	67
• The Lijnmarkt <i>Foursquare</i> analysis	70
• The Lijnmarkt people count	72
• The retailer interviews	73
• The LBS theme day poster	74
• The workshop briefing	75
• The workshop results	77
• The transcripts of the interviews with Dennis van der Vliet and Maarten Clemens	87
• The questionnaire results	98
• Plan of action	107





#	Company name	Chamber of commerce name	Chamber of commerce #	Type of venue
1	Boutique Lacoste	Boutique Lacoste	34124940 0006	Clothing store
2	Scotch & Soda Flagship store	Scotch & Soda Retail B.V.	34278517 0001	Clothing store
3	Ger Schoen	Schoen	30049365 0003	Leather goods
4	Vitamin Store	Vitaminstore Utrecht	32108940 0000	Healthstore
5 - 7	Foto Boekhorst	Foto Boekhorst B.V.	30030306 0002	Photography store/Coffee and sweets shop
6	Edelstijl Juwelier	Edel Stijl	30118178 0000	Jeweler
8	Petit Bateau	Petit Bateau Utrecht	20106391 0005	Baby and toddler clothing
9	Bond en Smolders	Patisserie Chocolaterie Bond & Smolders	30014263 0000	Pastries, cakes and coffee
10 - 12	De Witte Ballons	Witte Ballons B.V.	30229589 0000	Bar Bistro
13	Michel Stoffen	Michel Stoffen B.V.	30074131 0000	Clothing and fabrics
14	La Chiara Cioccolata	La Chiara Cioccolata	30215524 0001	Chocolaterie and business gifts
15	Netjes Kleding	Netjes	30114026 0000	Clothing store
16	P 'n P (Prods and Primes)	P 'n P Prod's 'n Primes	30127554 0000	Home decor and gift shop
17	De Literaire Boekhandel	Literaire Boekhandel Lijnmarkt	30079945 0000	Bookstore
18	Aliazzo	-	-	Clothing store
19	Cora Kemperman	Cora Kemperman	18056224 0002	Clothing store
19	La Ligna	La Ligna (Utrecht)	34281333 0010	Clothing store

#	Company name	Chamber of commerce name	Chamber of commerce #	Type of venue
20	Colori Shoes	-	-	Shoe store
20a	Noa Noa	-	-	Clothing store
21	Waar	WAAR Utrecht	11066934 0002	Sustainable gifts shop
22	Wolspeciaalzaak Modilaine	G. van Dijk	30062214 0000	Wool and clothing store
23-25	Image	-	-	Clothing store
24	NES	Nes Mode	30138998 0004	Clothing store
26	BIS	Restaurant BIS B.V.	30190064 0000	Cafe
27	A.R.T.	A.R.T. Utrecht	09124754 0001	Clothing store
28	Tailors & Co	Scoglio	34211804 0000	Klerenmaker
29	MBT	MBT Store Utrecht	30166640 0002	Shoe store
30	10 Days	Van Dort Utrecht B.V.	30213277 0000	Clothing store
31	G.A.J. van den Heiligenberg	G.A.J. van den Heiligenberg	30031605 0000	Home decor and gift shop
32 - 34	Aba-i	ABA-I	30072309 0102	Home decor
33	Baars en van de Kerkhof Passementerie	Baars & v.d. Kerkhof	30056104 0000	Decorations
35	Wolky	De Wolky Shop	30082935 0003	Shoe store
36	Fotopatent	Foto Patent	30184714 0000	Photography store
37	Players	Players Shoes Utrecht	33279334 0011	Shoe store
38	De Duif	De Duif B.V.	30007027 0000	Lighting (going out of business sale)
39	Samira's Wenlin	Samiras Wenlin	30123344 0001	Egyptian (and other African) products
40	Optical Art	Optical Art	30079844 0000	Optician
41	Eleganza	Eleganza Utrecht	32091800 0001	Shoe store
42	Lien & Giel	Liens & Linnen	32094725 0005	Clothing store
43	Kathmandu	Hebrides B.V.	30165460 0000	Clothing store
44	Bag it!	Bag It! Utrecht	32129969 0000	Clothing store
45	Noahs	Noahs	30166649 0000	Kinderwinkel
46	Wikkemode	Wikkel Mode	30238272 0000	Clothing store
47	Van Pommeren	Fa. Van Pommeren	30015924 0000	Kitchen appliances
48	Culturemix	Culture Mix B.V.	30079553 0000	Jeweler
50	Cafe de Postillon	De Postillon	30001888 0000	Cafe



#	Website	Twitter/ Facebook	Web/Social media use
1	http://www.lacoste.com/	-	Just a generic brand-website that has the address and phonenummer of the Utrecht store.
2	http://www.scotch-soda.com/	-	Just a generic brand-website that has the address and phonenummer of the Utrecht store.
3	http://www.gerschoenleder-waren.nl/	-	Since 5th of april 2011 a website that features their address, opening hours, a history of the shop, a webshop, newsletter, information on their products/ return policy, etc. No blogs or news items.
4	http://www.vitaminstore.nl/shop/Utrecht/	@Vitaminstore	Generic brand website, store locator mentions opening hours, the 'team' (one guy), product range, and 'special store offers', but that section is empty. Twitter stream offers healthtips (combined with product offers, of course), and generic chain-wide discounts. Updated regularly.
5 - 7	http://www.fotoboekhorst.nl/	-	Used to have a website, went offline. Store closed down in april.
6	http://www.edelstijl.nl/	-	Website has extensive information about their product range, the owners, an invitation to come watch the jeweler at work, address data (google map included), and a 'news' section, but that hasn't been updated since november 2010.
8	http://www.petit-bateau.com/	-	Brandwebsite, no Dutch section.
9	http://www.bondsmolders.nl/	-	Address, opening hours and product range.
10 - 12	-	-	No web presence.
13	-	-	No web presence.
14	http://www.lachiara.nl/	-	There is a website, but it only features a different venue in Hagestein. There is a webshop. Nowhere on the website does it refer to the venue at the Lijnmarkt
15	http://www.netjes-kleding.nl/	http://www.facebook.com/profile.php?id=100001993458429&sk=wall	Website with extensive information and photo's of their two locations in Utrecht. There is also an (up to date) agenda with 'festivals' they will be attending (with booths), a webshop, and a 'news' section which hasn't been updated since 2008. They also have a Facebook page which has been updated last at april 9th. The website does not refer to the Facebook page.
16	http://www.prodsandprimes.nl/	-	Website with extensive info on the shop contact data, opening hours and a webshop. No social media use.
17	http://www.litteraireboekhandellijnmarkt.nl/	-	Website with extensive info on the shop, 'news' items, and information on the 'books of the month'. The 'newsletter' section of the website doesn't work. There is also contact information available. No social media use.
18	-	-	No online presence.
19	http://www.corakemperman.nl/	http://www.facebook.com/pages/Cora-Kemperman/66356469719?sk=info	Generic brand website with a store list, features address and opening hours plus a photo. There is also a generic brand Facebook page, but there are no mentions of in-store deals.

#	Website	Twitter/ Facebook	Web/Social media use
19	http://www.laligna.nl/	@La_Ligna http://www.facebook.com/pages/La-Ligna/195658417124146	Generic brand website, store locator mentions address, contact information and opening hours, a webshop, and newsitems concerning the clothing line and certain in-store events (like fashionshows). They also offer a newsletter. They have a Twitter feed which offers the same news items they post on their website. They have recently started a Facebook page that refers to their website and features a few photographs of their clothingline.
20	http://www.colorishoes.nl/	@colorishoes http://www.facebook.com/colorishoes?sk=wall	Generic brand website, store locator mentions address, contact information and opening hours. They also feature links to their Facebook and Twitter page, both of which feature news items regarding their product line. The Facebook page is a 'personal' page from one of the founders, and the website also refers to her blog, in which she posts the same items as she does on the social media pages. Everything refers to one another. Well established online.
20a	-	-	No web presence.
21	http://www.ditiswaar.nl/	-	Generic brand website, store locator mentions address, contact information and opening hours. They also have a newsletter with information regarding their products.
22	http://www.modilaine.nl/	-	Features a somewhat aged website with store information (opening hours, contact information, product information), and information regarding knitting and crocheting courses they offer every Friday.
23-25	http://www.imagewear.nl/	-	Brandwebsite, there are four stores, all in the center of Utrecht. They have a web shop, they offer a newsletter and the website refers to a Hyves account which hasn't been updated since 2009. There are also referrals to LinkedIn and Twitter, but these are not actually active links.
24	-	-	No web presence.
26	http://www.bis-utrecht.nl/	-	A website containing contact information, opening hours, a menu, and the information one needs to make a reservation. No social media presence.
27	http://www.art-fashion.nl/	-	Generic brand website, store locator mentions address, contact information and opening hours. There's also a web shop. No newsletters or social media.
28	http://www.tailorsandco.nl/	@tailorsandco http://www.facebook.com/pages/Tailors-Co/169453989743740	Generic brand website, store locator mentions address, contact information and opening hours, brands, prices and references to celebrities that wear their clothing. They also have a Twitter account and Facebook page, which are used to update people on celebrities that wear their clothing, photo's of their stores and materials, etc. They also refer to other websites containing info on their shop. Well established online.

#	Website	Twitter/ Facebook	Web/Social media use
29	http://www.mbtstore-utrecht.nl/	@MBTstore	Generic brand website, store locator mentions address, contact information and opening hours, a web shop, and news items concerning the clothing line and certain in-store events (like fashion shows). They also offer a newsletter. They have a Twitter feed which offers more news items and invitations to in-store events. Well established online.
30	http://www.vandortmode.nl/10days/	-	Website offers store information, some product info and contact info and an agenda for in-store events (currently empty). No newsletter or social media.
31	http://www.shopzone.nl/heiligenberg/	-	Aged website that offers their address, contact information, some photos of the store and a little bit of product information. No opening hours, news or social media. Very outdated website.
32 - 34	http://www.aba-i.nl/	http://www.facebook.com/pages/Aba-i/109932445719621	Website offers store information, contact info, opening hours, <i>Google Maps</i> and news items concerning their product line. They also have a web shop. Besides their website they have a Facebook page featuring the same news items as on their website.
33	-	-	No web presence.
35	http://www.wolky.nl/	-	Just a generic brand website that has the address and phonenumber of the Utrecht store.
36	http://www.fotopatent.nl/	-	Somewhat aged website with a webshop. The store's address and phone number are featured on nearly every page. They offer information on in store activities (passport photography, rental, etc) and they have a news stream containing product sales etc. No social media use.
37	http://www.players.eu/	-	Generic brand website, featuring the addresses and phone numbers of their different stores and an announcement that a bigger website and webshop are on their way.
38	http://www.duifverlichting.nl/	-	Website offers information on their service; lighting advice, their address and contact information, and the option to make an appointment for lighting advice. No social media use.
39	http://www.samira-utrecht.nl/	-	Extensive information on the store, their products, and the invitation to come talk to the shop's owner about their products and travels to Egypt arranged by the store. No social media use.
40	http://www.opticalart.nl/	-	Website offers extensive store information, product information, contact data and job offers. No social media use.
41	http://www.eleganza.nl/	@eleganzashoes	Website offers location, contact data and openinghours to all three of their shops. They also feature a web shop, news about their product line and Facebook and Twitter feed that also feature news about their product line, sales, etc. Active online presence.
42	http://www.lienengiel.nl/	@lienengiel http://www.facebook.com/liengiel	Strong online presence. Webshop, store information, contact information, opening hours, regular Facebook and Twitter updates and information concerning the owners and their goals. Active online presence.

#	Website	Twitter/ Facebook	Web/Social media use
43	http://www.kathmandu.nl/	-	Generic brand website, store locator mentions address, contact information and opening hours, a web shop, and news items concerning their product lines. They also offer a newsletter.
44	-	-	No web presence.
45	http://www.noahs.nl/	-	Website with extensive info on the shop, contact data, opening hours and a webshop. No social media use.
46	http://www.wikkel-mode.nl/	-	Webpage with their address, contact data and opening hours. One sentence that states the brands they sell. Nothing more.
47	http://www.vanpommeren.nl/	-	Website with extensive info on the shop, contact data, opening hours and a webshop. They have a news section and offer polls. No social media use.
48	http://www.culturemix.nl/	http://www.facebook.com/pages/Culture-Mix/162221172096	Website with information on their two locations in Utrecht. There is also an (up to date) agenda with 'fairs' they will be attending, They also have a Facebookpage which has been updated last in the winter of 2010. The website does not refer to the Facebook page. They have a Twitter account, but Tweets are protected.
50	http://cafedepostillon.nl/	-	Website with extensive info on the cafe (what beers they have on tap for instance), photographs, contact data, opening hours. No social media use.

Foursquare

#	Coordinates	Foursquare Venue ID	Foursquare venue created by researcher?
1	52.09021, 5.12002	7751857	
2	52.09026, 5.12020	11609728	
3	52.09020, 5.12006	19172067	√
4	52.09023, 5.12017	19171985	√
5 - 7	52.09017, 5.12019	1202679	
6	52.09021, 5.12020	19172123	√
8	52.09015, 5.12021	13346674	
9	52.08999, 5.12017	3545534	
10 - 12	52.09010, 5.12019	225515	
13	52.08998, 5.12018	19172424	√
14	52.09005, 5.12027	19172271	√
15	52.08994, 5.12021	19172539	√
16	52.09001, 5.12030	19172374	√
17	52.08990, 5.12027	2919344	
18	52.08999, 5.12033	19120720	√
19	52.08986, 5.12027	1912183	

#	Coordinates	Foursquare Venue ID	Foursquare venue created by researcher?
19	52.08986, 5.12027	19252220	√
20	52.08998, 5.12037	19172619	√
20a	52.08985, 5.12045	19182254	√
21	52.08978, 5.12033	1614539	
22	52.08982, 5.12043	19253920	√
23-25	52.08972, 5.12040	1292704	√
24	52.08978, 5.12046	19254114	√
26	52.08973, 5.12049	1312334	
27	52.08961, 5.12048	14637121	
28	52.08970, 5.12055	16448009	
29	52.08956, 5.12052	19182779	√
30	52.08965, 5.12056	18579683	
31	52.08954, 5.12051	19182933	
32 - 34	52.08964, 5.12061	19183275	√
33	52.08943, 5.12026	19254260	√
35	52.08945, 5.12054	15840551	
36	52.08956, 5.12070	3539817	
37	52.08940, 5.12058	19254350	√
38	52.08945, 5.12080	1752774	
39	52.08938, 5.12061	19254484	√
40	52.08940, 5.12078	7028430	√
41	52.08935, 5.12065	12966087	√
42	52.08938, 5.12080	19254670	√
43	52.08929, 5.12070	3743387	√
44	52.08934, 5.12083	19254859	√
45	52.08924, 5.12071	14759356	
46	52.08932, 5.12087	19254958	√
47	52.08919, 5.12081	5796203	
48	52.08921, 5.12117	19255074	√
50	52.08916, 5.12101	19255209	√

26-04-2011 13.00 - 16.00

	Count
Men	1427
Women	2137
Total	3564
Bond & Smolders	82

12-05-2011 18.00 - 21.00

	Count
Men	1548
Women	1804
Totaal	3352
Bond & Smolders	N/A

Notes:

- End of the month, possibly more people because of salaries being transferred.
- Children are counted as well, which is difficult because where do you draw the line? Do babies count?
- People who walk with their bicycles count, people who are actually on their bicycles do not.
- People who walk out of the street via the side-street, or who go towards the city centre using the side street do not count.

07-05-2011 13.00 - 16.00

	Count
Men	2839
Women	4300
Totaal	7139
Bond & Smolders	215

- The day before Mother's day, so possibly more people who are purchasing last minute gifts.
- It was very busy, so people who would normally have been on their bicycles might now have been walking along side of them.

Bent u bekend met het fenomeen social media?

Van Pommeren: "Social" media? Nee, dat zegt me niets."

Noahs: "Ja."

Lien & Giel: "Nee."

MBT: "Ja."

Zou u wat voorbeelden kunnen noemen?

Noahs: "Twitter, Facebook, eh... Wat is er nog meer?"

MBT: "Facebook, Hyves, dat soort dingen."

Bent u zelf actief met social media?

Noahs: "Wij zelf persoonlijk, wij doen daar niet zo aan. Nee, dat gaan wij leren."

MBT: "Ja, we zitten op Twitter dacht ik."

Wat doet u er dan precies mee?

MBT: "Ik niets, dat is iemand van de website die dat allemaal regelt. We doen er in de winkel weinig mee, we hebben echt iemand die de website in de gaten houdt en inderdaad, Twitter en dat soort dingen."

Waarom bent u er mee bezig? Wat verwacht u er uit te halen?

MBT: "Dat klanten hun mening kunnen geven, over ons product ook, zowel positief als negatief, maakt niet uit natuurlijk. Dat mensen dit kunnen lezen en daardoor misschien ook eerder op aanschaf over kunnen gaan."

Wil u er in de toekomst tijd aan gaan besteden? Waarom wel/niet?

Noahs: "Met de winkel bedoel je? Nou er wordt getwitterd. Via Face. Het was in het begin heel erg hype, net zoals in het begin bij Hyves en bij Facebook, we hadden het er toevallig gisteren over, iedereen wilde Hyves. Dat wordt nu langzaam minder, dat is bij Twitter ook. Iedereen Twitteren, maar op een gegeven moment merk je van hè? 'Ik hoef niet precies te weten wat diegene allemaal doet.' Ik denk niet dat dat echt iets is voor onze klanten. Veel mensen, zie je ook

bij bedrijven, dat ze het qua relaties en contacten, dat ze daar heel veel aan, dan is het juist handig. Maar in die zin naar klanten en dingen? Nee."

"Stelt u zich een mobiele dienst voor met informatie over alle winkels in Utrecht. U kunt opzoeken welke producten u waar kunt kopen, tips lezen en achterlaten. Ook kunt u, als u in het centrum bent, aangeven dat u daar bent (inchecken). Iedere keer als u dit doet krijgt u punten. Deze punten zijn in te wisselen voor leuke acties en prijzen in de winkels in de stad."

Noahs: "Oh ja, dat is net zoiets als wat ik op mijn iPhone heb, en pas stond er iets over shopping eh, iets. Dus ik denk ik toets even 'kindermode' in, en toen zag ik dingen waarvan ik dacht: 'waarom staan die er in godsnaam op?'. Winkels die helemaal geen kindermode meer verkochten, dames kochten dat, heel verouderd. En toen dacht ik eh; dat is wel goed. Maar ik denk ook; iedereen heeft binnenkort een iPhone of een Blackberry. En als je ziet wat voor apps ik er allemaal op heb, je kan het niet verzinnen. Maar ik kan me voorstellen dat je straks naar de stad gaat en denkt van 'Oh, tik tik tik! Daar is de winkel, daar is een leuke winkel... Ja.'

Zou u bereid zijn aanbiedingen op dit platform te zetten, tegen betaling, als u er meer klanten door krijgt?

Van Pommeren: "Ja en wat moet ik hier mee? Dat zal zich eerst maar eens moeten gaan bewijzen denk ik?"

Noahs: "Ja misschien dat wel, daar geloven we wel in."

Lien & Giel: "Ja, dat is niet aan mij. Dat is aan de baas. En die is niet zo van de social networks en zo, daar gelooft hij niet zo in. Ik vraag me af of hij dat zou doen."

MBT: "Nou we hebben die aanbiedingen sowieso al op de website staan. Als er iets is staat het op de website. Maar het is wel een extra kanaal, ik denk dat ze daar wel positief tegenover zouden staan."

Themadag location-based service voor retailers op de Lijnmarkt in Utrecht

19 April 2011



In samenwerking met Feest.je



13.30 - 15.30 (groep 1)

15.30 - 17.30 (groep 2)

Genodigden: Digitale Communicatie derdejaars studenten, de kenniskring, projectleiders centrumondernemers, Feest.je.

Inleiding

Centrumondernemers in Utrecht en Enschede merken gestaag een afname in het winkelend publiek in de stadscentra. Vanuit deze hoek is er een onderzoek gestart om te kijken of nieuwe media een rol kunnen spelen in het verbeteren van deze situatie. Onderdeel van dit onderzoek is een scriptieonderzoek met als hoofdvraag "Hoe kunnen location-based services bijdragen aan een integratie van on- en offline winkelgedrag in het centrum van Utrecht". Vandaag gaan jullie bijdragen aan dit onderzoek en hopelijk aan jullie eigen kennis en inzicht omtrent location-based services.

Het plan is om een location-based service (LBS) met een beloningssysteem te bedenken specifiek voor de Lijnmarkt in Utrecht. De Lijnmarkt is een typisch voorbeeld van een straatje in het centrum met kleine winkeltjes die hulp nodig hebben om meer klanten binnen te krijgen. De gezamenlijke denkracht en input van deze workshops kunnen hopelijk helpen om een schets van een LBS uit te werken tot een concreet verhaal. Dit kan gebruikt worden om retailers op de Lijnmarkt een mooie dienst te kunnen presenteren; wat het uiteindelijke doel is van het scriptieonderzoek. Daarnaast krijgen jullie de kans om de kennis die jullie de afgelopen weken hebben opgedaan toe te passen.



Het idee is dat jullie een concept voor een beloningssysteem bedenken wat mensen de Lijnmarkt op trekt. Om het interessant te houden mag dit in geen geval inhouden dat mensen korting krijgen! De uitdaging wordt dus de combinatie lokaal en mobiel; hoe maak je dat bruikbaar? Na een concept bedacht te hebben krijgen jullie nog de tijd om een daadwerkelijke mock-up of wire-frame te bouwen gebaseerd op de API van Feest.je.

Succesfactoren LBS

Na onderzoek zijn er een aantal punten naar voren gekomen waar een LBS aan moet voldoen om succesvol te zijn, de meeste punten zijn behoorlijk vanzelfsprekend;

- Probeer in gesprek te komen met de klant, niet tegen ze aan te praten
- Gebruik de locatie van de gebruiker in je voordeel
- Gebruik korte, simpele teksten
- Vraag toestemming aan de gebruiker
- Push berichten zijn leuk maar moeten afgesteld kunnen worden door de gebruiker
- Uiteraard een goed design; de info over locatie moet duidelijk aangegeven zijn

- Hou hierbij ook rekening met verschillende platforms, werkt de applicatie op verschillende telefoons met andere schermformaten e.d.?
- Gebruikers moeten zelf content kunnen creëren
- Niet te veel zware content op het platform, de applicatie moet snel laden
- Er moet een sociaal element in zitten, tegenwoordig draait alles om delen
- De gebruiker moet voordeel kunnen behalen door het product te gebruiken; 'what's in it for them?'

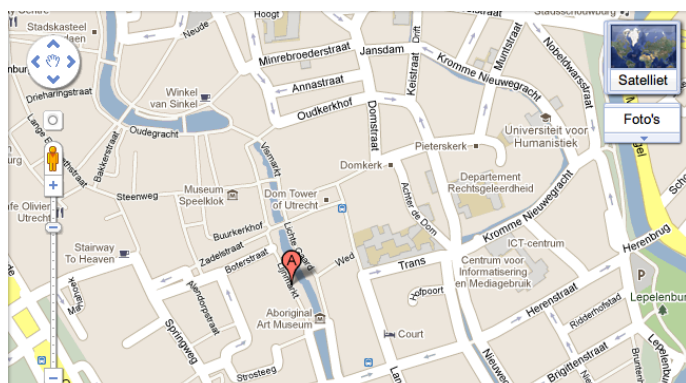
En nogmaals; een vereiste van het concept is dat het beloningssysteem niet uit gaat van korting.

De Lijnmarkt is een straat in Utrecht met daarin 46 zaken, voornamelijk kleding winkels. Ook zijn er drie cafés te vinden; de Witte Ballons, BIS en cafe de Postillon. Met name de Witte Ballons is een vrij populaire zaak die recentelijk een flinke verbouwing heeft gehad. Er lopen dus dagelijks vele mensen door deze kleine straat in het hart van het centrum van Utrecht. Achter de Lijnmarkt loopt de gracht en tussen de winkels door is er uitzicht op de Dom. Er zijn niet veel ketenzaken, de meeste winkels zijn van zelfstandige ondernemers.

De volledige lijst van de zaken op de Lijnmarkt is als volgt:

#	Bedrijfsnaam	Type
1	Boutique Lacoste	Kledingwinkel
2	Scotch & Soda Flagship store	Kledingwinkel
3	Ger Schoen	Lederspeciaalzaak
4	Vitamin Store	Healthstore
5-7	Foto Boekhorst	Fotospeciaalzaak (gaat weg)
6	Edelstijl Juwelier	Juwelier
8	Petit Bateau	Baby en peuter kleding
9	Bond en Smolders	Gebak en koffie
10-12	De Witte Ballons	Bar Bistro
13	Michel Stoffen	Kleding en stoffen
14	La Chiara Cioccolata	Chocolaterie en relatiegeschenken
15	Netjes Kleding	Kledingwinkel
16	P 'n P (Prods and Primes)	Interieur en cadeau artikels
17	De Literaire Boekhandel	Boekhandel
18	Aliazzo	Kledingwinkel
19	Cora Kemperman	Kledingwinkel
19	La Ligna	Kledingwinkel
20	Colori Shoes	Schoenenwinkel
20a	Noa Noa	Kledingwinkel
21	Waar	Duurzame cadeaus
22	Wolspeciaalzaak Modilaine	Wol en kleding
23-25	Image	Kledingwinkel
24	NES	Kledingwinkel

#	Bedrijfsnaam	Type
26	BIS	Café
27	A.R.T.	Kledingwinkel
28	Tailors & Co	Klerenmaker
29	MBT	Schoenenwinkel
30	10 Days	Kledingwinkel
31	G.A.J. van den Heiligenberg	Interieur en cadeau artikels
32-34	Aba-i	Interieur
33	Baars en van de Kerkhof Passementerie	Decoraties
35	Wolky	Schoenenwinkel
36	Fotopatent	Fotospeciaalzaak
37	Players	Schoenenwinkel
38	De Duif	Verlichting
39	Samira's Wenlin	Egyptisch en Afrikaanse producten
40	Optical Art	Brillen
41	Eleganza	Schoenenwinkel
42	Lien & Giel	Kledingwinkel
43	Kathmandu	Kledingwinkel
44	Bag it!	Kledingwinkel
45	Noahs	Kinderwinkel
46	Wikkemode	Kledingwinkel
47	Van Pommeren	Keukenapparatuur
48	Culturemix	Juwelier
50	Cafe de Postillon	Café



1	Introductie & werkinstructie	5 min
2	Sessie 1 • Mindmappen • Concept in drie zinnen op papier zetten	20 min
3	Sessie 2 • Uitwerken concept	30 min
4	Pauze	10 min
5	Sessie 3 • Verder met uitwerken concept	35 min
6	Afronding • Presentatie concepten • Afsluiten	15 min 5 min

De Opdracht

De opdracht is om tot een sterk concept voor een LBS te komen en hier een begin aan te maken op de API van Feest.je; specifiek gericht op de Lijnmarkt. De basis is al opgezet door de heren bij Feest.je, jullie kunnen daar op voort bouwen.

Het idee is om een soort beloningssysteem te creëren voor het winkelend publiek. Als zij inchecken bij een winkel in de Lijnmarkt kunnen ze daar voordeel uit halen, maar aangezien korting een open deur is gaan we die niet toepassen. De details gaan we vandaag bedenken en zo goed mogelijk proberen uit te werken.

We creëren groepjes van vier à vijf man. Ieder groepje bedenkt samen wat voor beloningssysteem zij willen bouwen op het systeem van Feest.je doormiddel van mindmaps. Na jullie tot een concept gekomen zijn wordt die in ongeveer drie zinnen op papier gezet.

Zodra dit concept er is kunnen jullie aan de slag met de API van Feest.je en een mock-up maken van jullie concept. Op deze manier krijgen jullie ook inzicht in de mogelijkheden en beperkingen van het huidige systeem. Aan het einde van de workshops presenteren jullie heel kort (in een minuut of 2, 3 max) wat jullie bedacht en gedaan hebben.

De deliverables zijn dus:

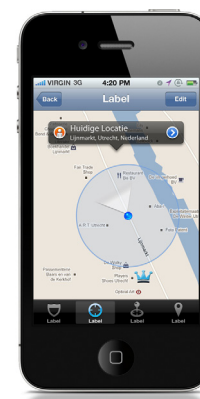
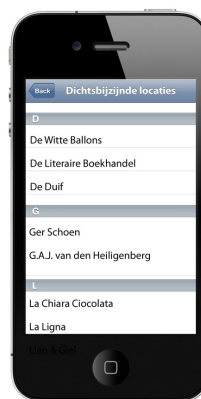
- Een mindmap
- Een korte omschrijving van jullie concept
- Een uitwerking van dat concept
- Een korte presentatie waarin jullie idee naar voren komt

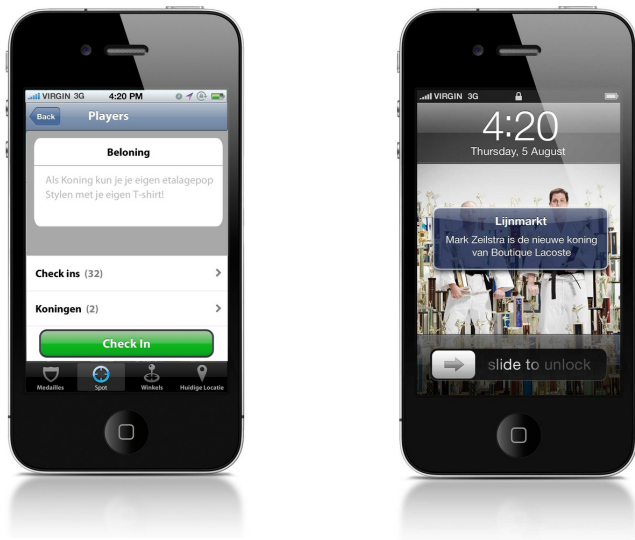
Succes!

The Workshops - Results

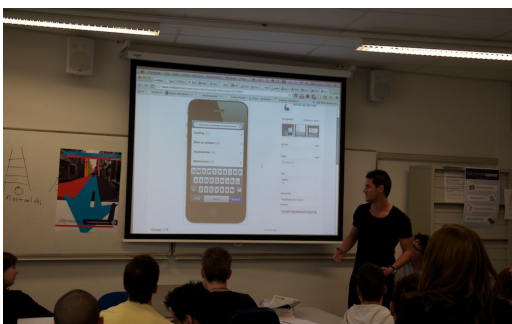
Workshop 1, team 1

Team one had a concept where the LBS application had a database of all the stores, the Lijnmarkt works as a unit. By checking in, besides becoming 'mayor' of a store, one can become 'king' of the street. If you become king, the street honors you (all in their own way). Clothing stores can put a t-shirt with your face on it in their window, for instance.





Workshop 1, team 2



Team two based their LBS on product categories. You could sort the stores in the Lijnmarkt by the type of product or service they sell and generate routes to the stores that sell the item of your choice. 'Liking' stores on Facebook is also one of the possibilities.

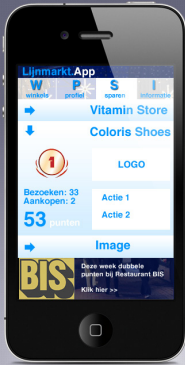


Team three also had a database of all the stores. Every store has a profile that says who's the major, and what special deals are on offer at that particular venue. Each week one venue has a special offer where checking in means double the amount of points.

Sparen

Lijnmarkt App

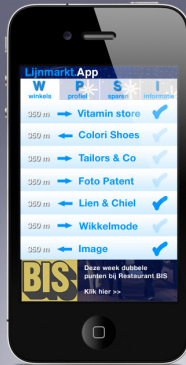
- ✓ Inchecken
- ✓ Sparen
- ✓ Beloningen



Winkels

Lijnmarkt App

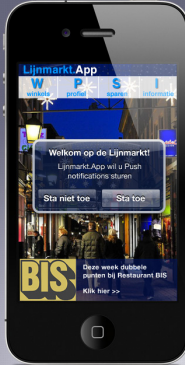
- ✓ Inchecken
- ✓ Sparen
- ✓ Beloningen

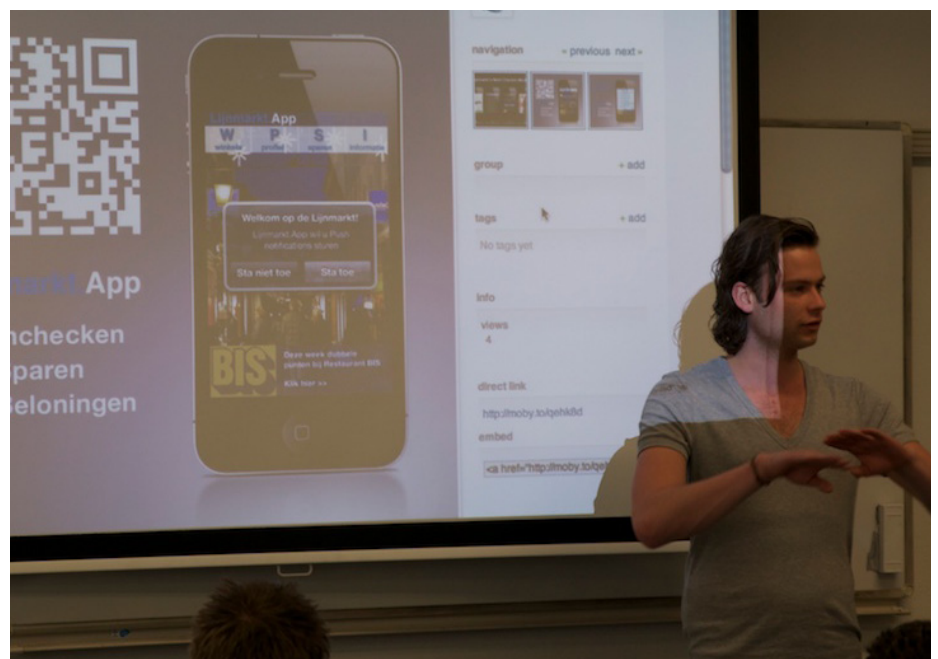


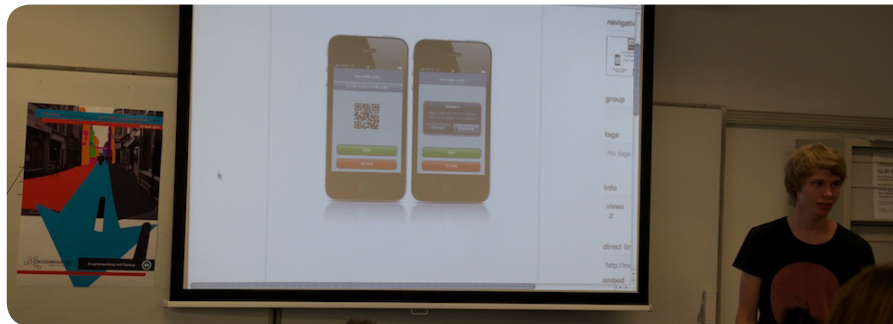


Lijnmarkt App

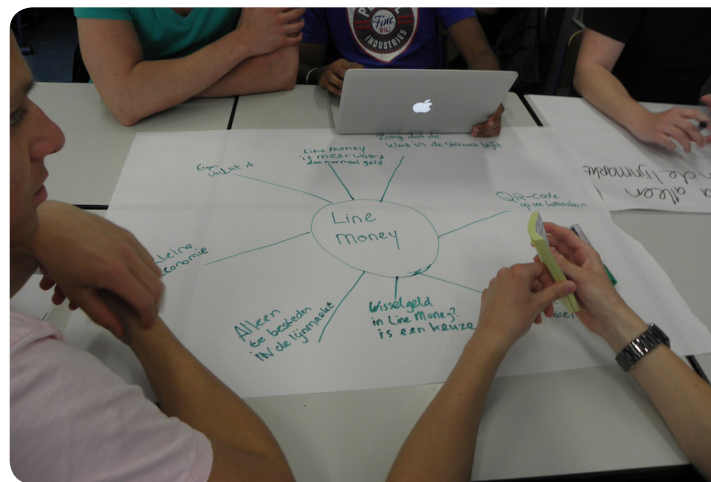
- ✓ Inchecken
- ✓ Sparen
- ✓ Beloningen







Team four wanted to create a stand-alone economy specifically for the Lijnmarkt using a location-based service. By checking in and purchasing items in the stores users collect 'Lijnmoney' which they can use to purchase items as well. By checking in and scanning QR codes at the bottom of receipts people collect their Lijnmoney.



Lijnmarkt's Next Checkin Model



Step 1
Check-in @ Lijnmarkt



Step 2
Check jezelf in de top!

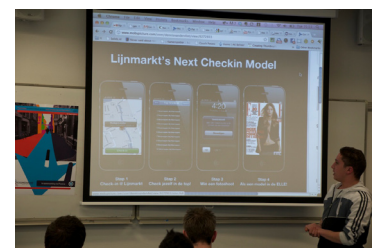


Step 3
Win een fotoshoot



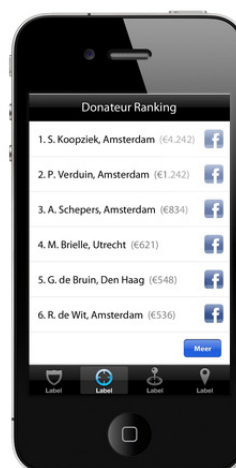
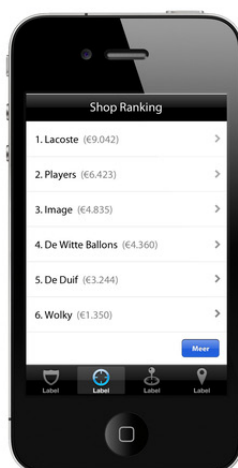
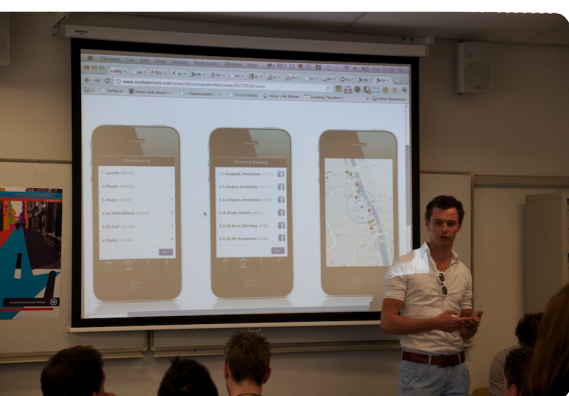
Step 4
Als een model in de ELLE!

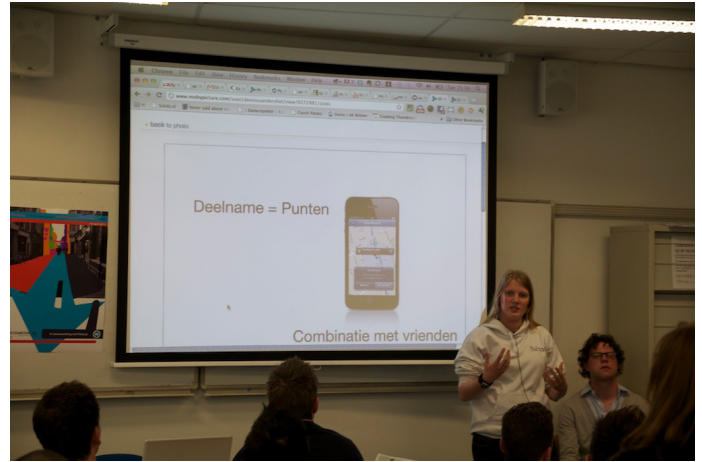
Team five created a gaming system called 'Lijnmarkt's next top model'. People can check in to the Lijnmarkt and score points. The more points you score, the higher you rank on the leader board. Every month, the winner receives a prize; a photo shoot while dressed in clothing for sale at the Lijnmarkt. The photos will be published in a fashion magazine such as Elle.



Workshop 1, team 6

Team six took a different approach. By checking in to stores, and purchasing items people generate money for good causes provided by the stores and the customers themselves if they choose to do so. These amounts get published on a leader board, sorted both by user as by store. These leader boards can be forwarded to Facebook through their 'like'ing system. This way, users feel good about donating money, can boast to their friends through Facebook and the stores get positive exposure and brand recognition.





Team seven created a system where the reward for checking into the Lijnmarkt meant a free event or activity organized by the retailers in the street. Checking in with friends means a doubling of the checkin points. For instance three friends check in to cafe bistro De Witte Ballons, each receive triple the amount of points as they would have had when checking in alone, and at the end of the month the users with the highest amount of points get a free party arranged for them by one of the establishments.

Deelname = Punten



Combinatie met vrienden

= Verdubbeling

Punten = Stemmen

Stemmen = Feest
Of activiteit

Team eight created a navigational system based on the users shopping preferences. The user enters a virtual shopping list, the amount of money they would like to spend and the products they are interested in. Based on this information the application provides a route users can take via the stores in the Lijnmarkt that have their desired items.

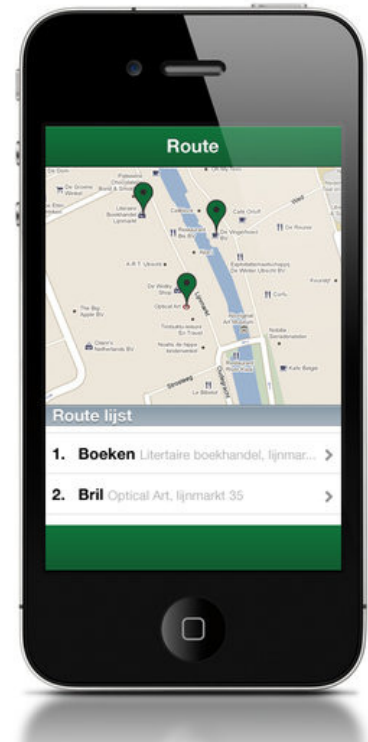
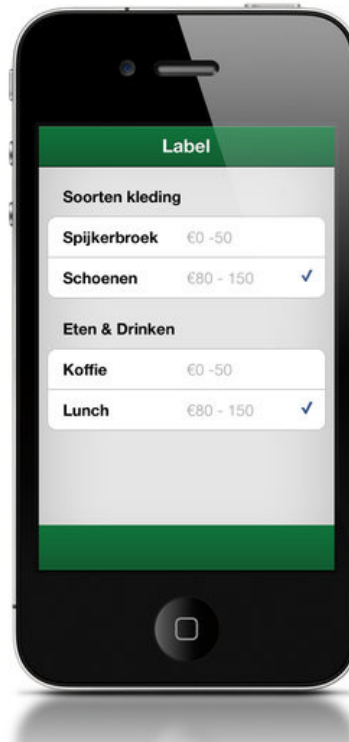




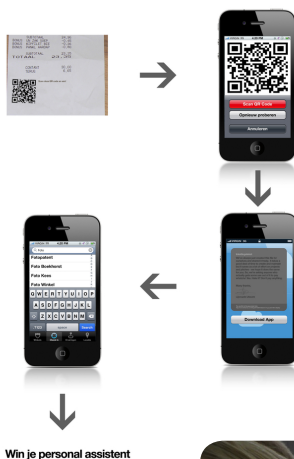
Shopping GUIDE

Shoppingguide stelt een leuke dag voor je samen gebaseerd op wat je nodig hebt en waar je zin in hebt in een stad naar keuze.

Op deze manier sluit je winkelroute het beste aan bij je winkellijstje.



Workshop 2, team 1



Team one had the idea to add QR codes at the bottom of receipts. By scanning the QR code, the user gets a prompt to download the LBS application. This LBS has a list of all the shops in the Lijnmarkt, and whenever one checks in to one of the stores they score points. The person with the highest amount of points wins a personal shopping assistant who advises them on what outfits to buy in the Lijnmarkt that make them look best!

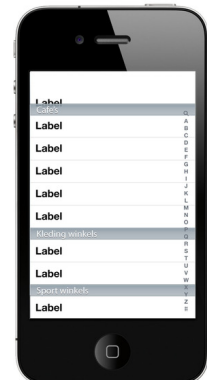
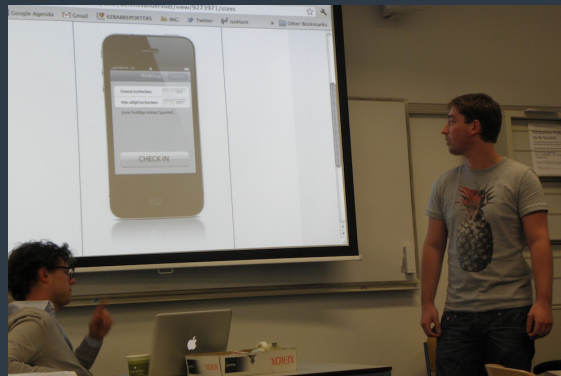
Team two offered a time based point system. The more time you spend in the Lijnmarkt, the more points you receive. Points can be exchanged for special Lijnmarkt goodies.





Team three decided to focus their attentions to one specific store in the Lijnmarkt, obviously with the intention to increase the exposure to other shops if the LBS would turn out to be successful. At the Lijnmarkt a person in an easterbunny suit would walk around alerting people to the existence of the LBS. The LBS in question would be a QR code, that if it was scanned enough would create a virtual easter bunny in front of the La Chiara Cioccolata using urban screens. Whoever managed to do this could receive a free basket of chocolate easter eggs.

Team four had a system that checked which venues you checked in to at the Lijnmarkt and defined what 'type' of person you were based on your checkins (for instance sportive, creative, etc.) Based on your 'type' the application can make recommendations based on the products available on the Lijnmarkt.



Team five created another index of the stores on the Lijnmarkt. In it people could see the amount of special deals available at every store, and every store had a specified page where you can read about the store and see what deals are available.



In wat voor situatie wordt jullie dienst over het algemeen gebruikt? Wat maakt jullie dienst uniek?

Je kunt inchecken, dat kan met heel veel producten; het is de core van LBS. Het is gelukkig niet zo dat de dienst weet waar je bent, het is altijd actief. Dus dat maakt Feest.je niet uniek. Wij vinden dat als je iets met locatie doet dat je een lokaal bedrijf moet zijn, omdat je met LBS de online wereld aan de off-line wereld koppelt, of andersom. Dat is heel lastig.

Facebook heeft er bijvoorbeeld baat bij om zo groot mogelijk te worden, dan heb je alleen maar schaalgrootte, omdat er maar één is. Daar is de culturele achtergrond... Daar zit ook wel een hoop cultuur in natuurlijk, maar als je dat op één plaats doet kun je dat in principe overal uitrollen, met het gebruik zit er nog weinig werk van hun kant in.

Wij vinden dat als je iets met locatie wilt doen je juist een connectie moet leggen met die off-line wereld, dus met kleine en grote bedrijven. Ik kan me moeilijk voorstellen dat je dat vanuit New York of LA ergens regelt. Ik kan me al niet eens voorstellen dat je dat alleen vanuit A'dam regelt, bij wijze van spreken. Het is al moeilijk om vanuit Amsterdam met kroegen in Maastricht te praten. Ik denk dat als je iets van betekenis wil doen je een lokaal bedrijf moet zijn. Je hebt uiteindelijk wel een sales organisatie nodig om dit een commercieel succes te maken. Je moet in ieder geval bereikbaar zijn. Dus dat maakt Feest.je anders dan Gowalla, Foursquare, Facebook places... etc.

We kennen de cultuur, we kennen de mensen, het is allemaal in het Nederlands, een kroeg kan ons bellen als ze iets willen, een restaurant kan ons bellen, een bedrijf, een merk, en dat is denk ik het verschil. Nu is inchecken nog de hoofdmodus, dan weet je waar je vrienden zijn. Op de midden-lange termijn wordt het veel belangrijker dat je mensen kunt vertellen waar ze heen moeten. Om wat dan ook te doen, dat maakt niet zoveel uit. Waar hun vrienden heen gaan, dat wordt nu belangrijk. Je moet data gaan verzamelen op de een of andere manier, van mensen. Daar zie je iedereen nu mee bezig (Foursquare).

Ik hoop dat een check-in standaard wordt, zoals bijvoorbeeld een e-mail. Een standaard formaat, dat iedereen het op dezelfde manier doet, zodat je het kan delen op welke manier je maar wilt. De truc zit hem in... die informatie over check-ins en tips en opmerkingen, hoe ga je dat vertalen naar iets? Dat je kan laten zien; "Ik ben nu in Utrecht, ik kom nooit in Utrecht, waar moet ik heen?" En dat is het idee, dat het een soort gids wordt.

Daarnaast binnen je eigen sociale groepje; Het is heel leuk om te weten dat je vrienden nu in *De Pijp* zijn, maar als jij op het centraal station staat, of in de Jordaan, dan ga je daar niet heen. Het is veel belangrijker om van tevoren een beetje te weten waar ze heen gaan. Facebook heeft natuurlijk 'events', maar dat staat weer los van die locatie. Foursquare heeft nog niets wat daar op lijkt, volgens mij. En Feest.je heeft natuurlijk 'feestjes'. Dat zijn een soort check-ins in de toekomst, dan en dan, daar en daar, in plaats van "Ik ben nu hier.", en dat is denk ik, dat hopen wij, dat dat de truc wordt. Maar dat is natuurlijk uitproberen.

We gaan nu, binnenkort, 'spot awards' lanceren. Dan kun je een cadeautje geven aan een 'spot'. Als jij altijd bij *The Coffee Company* komt, en je vindt dat zij de lekkerste koffie hebben, dan kun je als gebruiker *The Coffee Company* een medaille geven. Dat wordt heel leuk. Dat gaat meer naar het 'gids' principe toe. Dat als je in Utrecht bent je in ieder geval weet van de gebruikers van Feest.je, dat volgens hun met een redelijke zekerheid, er goede koffie wordt geschonken, of waar het gezellig is op vrijdagmiddag.

Het is natuurlijk wel heel lastig, want aan de ene kant wil je data van mensen onttrekken, en aan de andere kant... Mensen hebben toch zoiets van, ze zijn toch wel op hun privacy gesteld, en ze willen niet het idee hebben dat ze jouw werk aan het doen zijn. Dat wordt het lastige, want als je dadelijk alleen maar weet waar mensen zijn geweest, nou ja, daar kan je al een bepaalde richting mee op, maar je hebt behoefte aan informatie die niet in cijfertjes te vatten valt. Die moet je omzetten in informatie die mensen snel en makkelijk kunnen interpreteren, in een plaatje bij wijze van spreken. Dat wordt de truc uiteindelijk.

Wie is jullie doelgroep?

Hoe meer zielen hoe meer vreugd. We doen niet aan marketing. We hebben geen groep waar we ons op richten. Doelgroep is voor mij... Als je gaat marketen richt je je op een doelgroep omdat je anders met iedereen gaat praten en dat werkt niet.

Onze gebruikers zijn over het algemeen man. We hebben nu 15.000 tot 17.000 gebruikers, afhankelijk van wat je actief noemt. Het is wel zo dat als je aan LBS doet, het is weer een stapje verder dan Facebook en Twitter, want je deelt wel echt waar je bent op dat moment, dus dat is wel iets wat je moet willen. Dat moet in je zitten, dat je dat graag wil delen, om wat voor reden dan ook. Er zijn verschillende redenen die mensen noemen, een

soort dagboek bijhouden, het game element; dus dat je dingen kunt winnen, het sociale element; dat je ziet waar mensen zijn, en deals en dat soort dingen, dat is natuurlijk nog niet zo groot op dit moment. Maar dat is dus een deel, niet eens zo zeer van de doelgroep, want daar doelen we niet op, maar dat is uiteindelijk de gebruiker, en er is natuurlijk op mobiel of op web nog niet zoveel aan, je internet explorer, dus je moet wel een telefoon hebben die dat kan.

Het is lastig om te bepalen of er genoeg smartphones zijn. Van de mensen die *Feest.je* zouden willen heeft het grootste deel daarvan al wel een smartphone. Dus als je het zo bekijkt is het een hele rooskleurige situatie.

We hebben *iPhone*, *Android* en *Blackberry*, de drie grootste, maar daar pak je dus niet mensen met een *Nokia* mee, maar voor ons is dus de afweging. *Nokia* mensen zijn er wel heel veel, maar hoeveel daarvan lopen zo voorop dat ze *Feest.je* zouden gebruiken, je kan er wel heel veel moeite voor doen om dat te gaan regelen. In die drie platformen zit sowieso nog genoeg groei, denk ik in ieder geval, maar dat is natuurlijk een beetje natte vinger werk. Wij focussen ons op het ontwikkelen van nieuwe functies en daarom waren we laatst ook zo blij dat Mariëlle van de universiteit Twente een onderzoek gaat doen naar gebruikers, want wij kunnen dat niet. Wij zijn de programmeurs, of managers, of weet ik veel, maar we zijn geen enquêteurs wat dat betreft. Wij vinden het zonde van de tijd om het maar kort door de bocht te zeggen. We gaan liever een nieuwe functie maken dan dat we een onderzoek gaan doen. Maar het is wel interessant om te weten. We hebben niet de tijd en middelen om daar onderzoek naar te doen.

We hebben niet een vast omlijnde doelgroep, maar de groep gebruikers is a. voor een deel technisch en b. een persoonlijk kenmerk is dat wel, ja ik denk wel redelijk vast omlijnt, maar dat is mijn gevoel.

Hoe krijgen jullie feedback van de gebruikers over de dienst? Wat vinden zij prettig?

De reguliere mail, *Twitter*, dat soort kanalen. Het lastige is dat mensen gebruiken de dienst toch op mobiel. Op web is het vooral passief, en de actieve handelingen, dus echt in checken, gebeurt op mobiel. En dat staat stiekem nog in zijn kinderschoenen. Op het web heb je op de linker- of rechterkant van de pagina nog een feedback button, maar op mobiel is dat natuurlijk lastig. Op een *iPhone*, alleen in de market, of de appstore kun je laten weten wat je er van vindt, maar je hebt meestal niet in een applicatie "Hey er gaat iets mis." of "Hey dit vind ik goed, dit vind ik fout.". Dus mensen moeten heel actief naar jou gaan zoeken, dus daar weet je weinig van. De mensen die moeite nemen om contact met je op nemen, dat is wel een stap, en ik denk dat er genoeg mensen zijn als er iets fout gaat, en zeker voor *Android* blijft ontwikkelen gewoon lastig, want veel verschillende telefoons, en dat moet je toch allemaal vangen in één app, dus als het vast loopt,

dan is maar de vraag of je daar ooit nog wat van hoort, of dat die mensen het gewoon nooit meer gebruiken. Dat blijft dus een beetje gissen.

Stel dat iemand *Feest.je* één dag gebruikt en daarna niet meer; waarom is dat dan? Dus dat is lastig, feedback op web is goed te doen, daar zijn genoeg tools voor, maar op mobiel is dat lastig omdat daar gewoon de technische...

Wat je ziet is dat mensen waarderen dat het Nederlands is, mensen waarderen dat er deals zijn, ook al gebruiken ze ze misschien niet, maar dat het er is, en mensen vinden het er vaak mooi uit zien. Dat is natuurlijk ook een compliment. Een van de nadelen is dat netwerken als *Facebook Places* en *Foursquare* veel groter zijn, en dat is inderdaad lastig. Maar, onze overtuiging is, onze hoop is dat: je locatie delen, je kunt het nu nog allemaal plaatsen op *Facebook* en *Twitter* enzo, maar dat zal, denk ik, afnemen. Als je duizend volgers hebt op *Twitter*, die hoeven niet allemaal te weten waar jij bent.

Je zult meer richting *Path* gaan. (gericht op de Amerikaanse markt) Maximaal 50 mensen kun je daar bevrienden. Dat is wel iets wat dicht bij locatie, het is niet ondenkbaar dat mensen zeggen; "Ik hoef dit niet meer met honderden mensen te delen, ik deel het met een selecte groep."

Wat je ook ziet, kip en ei verhaal, komt dat omdat er nog niet zo veel gebruikers zijn? Of is dat een bewuste keus? Maar je ziet met die groepen netwerken die mensen hebben op *Feest.je*, dat die groepen niet zo groot zijn als op *Facebook*. De gemiddelde *Facebooker* in Nederland heeft iets van 130 of 140 contacten. Dat gemiddelde is inclusief mijn moeder en de buurvrouw, bij wijze van spreken, die er misschien maar 10 of 20 hebben, en de grootgebruikers. En ik denk dat je bij dingen als *Foursquare* en *Gowalla* en *Feest.je*, dat je er daar niet aan gaat komen, omdat dat; stel dat je mensen hebt, ik heb een keer in Turkije gestudeerd een half jaar, en die mensen zitten op *Facebook*; die mensen interesseert het echt niet als ik hier bij station Amstel ben. Dat wordt inderdaad nog een uitdaging, van hoe ga je dat doen? Je wil misschien op een gegeven moment alleen maar je locatie, (nu krijg je bijvoorbeeld een berichtje als je ergens incheckt) delen met mensen die op 10 of 20 km van jou op dat moment zelf zijn ingecheckt. Dus ik denk, ik vermoed, dat de netwerken uiteindelijk kleiner zijn dan op *Facebook* of *Twitter*.

Wat is jullie verdienmodel? Wat zijn de tarieven voor het gebruik van de dienst?

Wij verdienen nu geen geld, het kost alleen maar geld, dus daar kan ik heel kort over zijn. Het verdienmodel, het zal uiteindelijk worden gebruikt, in principe is ons idee, altijd gratis blijven.

Ik denk dat er heel weinig services zijn op het internet die niets afleveren, muziek werkt inmiddels redelijk, maar ik

zie niet een bedrijf als *Facebook*, dat je daar voor moet gaan betalen. Wat je levert is de content van andere mensen en daar willen mensen niet voor betalen. Ik wil niet betalen om te zien dat jij ergens bent geweest. Ik denk ook niet dat dat gaat werken.

Het geld moet komen van, aan de ene kant, gewoon bedrijven die exposure kopen op het platform, dus dat zijn de grote bedrijven en merken en dat soort dingen, en dan uiteindelijk, de hoofd moot, zal, de aanname die wij nu doen, uit deals komen. Dus bedrijven die deals aanmaken op het platform, die het platform gaan gebruiken om contact met hun klanten of hun gasten te onderhouden. En dat, dat is natte vingerwerk.

Het verdienen model met *Gillette* of de *Staatsloterij* is heel duidelijk, die sponsort gewoon alle deals die op koninginnedag zijn. Er komt een bannertje, en dat is heel duidelijk al een bestaand business model, gewoon adverteren is dat.

Dan kun je nog een stapje verder gaan, dat je zegt: *Amstel* die, elke keer als je in een *Amstel* kroeg incheckt, dan verdienen je punten, of daar kun je iets winnen. Dat is een campagne en gebruiken ze jouw platform om dat te doen. Daar kun je natuurlijk ook gewoon een prijs aan hangen, per gebruiker, dat is ook nog... Voor die deals van bedrijven zelfs, *the Coffee Company*, of op de hoek een café, dat is veel ingewikkelder. Daar zit ook een verdienen model in, je gaat gewoon geld vragen per deal die wordt aangeboden in principe, daar moet het ergens in zitten. Maar ga je dan: "je mag een maand lang doen wat je wil, vanuit die €15", "Je betaald per deal" "Je betaald per gebruiker die uiteindelijk van de deal gebruik maakt"? Dat weet ik niet, dat is wat we nu herkennen. Misschien blijkt ook wel dat die bedrijven er überhaupt niet voor willen betalen, en dan moet je dus weer op zoek naar iets anders.

Wij zijn nu op het punt: wij willen deals op het platform hebben, dat is prioriteit nummer één, ook omdat dat het leuker maakt voor de gebruiker. Hoe je dat uiteindelijk gaat omzetten in geld, dat is iets wat in de toekomst ligt.

Het is nog lastig om te meten hoe gebruikers reageren op deals. Dat is een issue die alle LBS platformen hebben. Je hebt een deal, en iemand stelt daar iets tegenover, en als je dat met Starbucks doet, dan is dat nog wel redelijk te regelen, want dan zorg je gewoon, dat is zo'n grote partij, daar kun je in je applicatie nog wel wat voor aanpassen dat het heel duidelijk wordt hoe mensen die deal moeten claimen. Als ze inchecken stuur je ze een barcode. Die kunnen ze laten scannen aan de kassa naar hun werk, maar voor de kleinere spelers, de lokale kroeg om de hoek; ga dat maar eens uitleggen. Dat wordt nog heel lastig. Dus dat is ook lastig te meten, hoe mensen het gebruiken. Het is niet zo dat je als je in checkt: dan zie je dat er een deal is op een gegeven moment, maar je kunt hem niet af vinken, of... En dat zou je natuurlijk wel uiteindelijk kunnen doen. Je zegt: "Je checkt in, je hebt recht op deze deal, maar op het moment dat je er gebruik van maakt laat je je telefoon zien aan de kassa, die tikken er op, en dan is ie voor jou af gestreept, mag je er geen gebruik meer van maken." Dat zou een optie zijn, maar daar weten wij niets over, je weet daar niets over, dus je kunt alleen zeggen als mensen de deal niet

verlengen, omdat ze er niets aan hebben gehad, of dat ze het vergeten zijn. En alles daar tussenin is denkbaar. Dat is het enige wat je ziet. Ik heb nog nooit van iemand een rapportje gehad; ik heb 12 koppen koffie verkocht met deze deal.

En personalisatie? Welke deals voor welke mensen?

In principe; als er deals zijn is er 1 deal per café, per kroeg. Hij komt dadelijk naar voren als je hier in de buurt bent, en je vraagt de lijst met spots in de buurt op zie je dat er een deal is, niet getarget, gewoon, iedereen krijg alles te zien. Je zou op een gegeven moment naar een model toe kunnen dat je zegt; ik heb zoveel deals, ik zie door de bomen het bos niet meer, ik moet gaan targeten. Maar ja, dat is... Wij weten ook te weinig van mensen. We slaan alleen de woonplaats (maar dat geef je zelf op), naam, email, en of het een mannetje of een vrouwtje is. Meer hebben we ook geen behoefte aan. Je kunt geen demografische gegevens op bouwen over deze groep mensen. Het kan natuurlijk wel, maar het voegt niets toe voor de gebruiker. We willen zoveel mogelijk gebruikers zien, dat is veel belangrijker dan wat we nou... Ik denk niet dat ik meer gebruikers ga krijgen als we gaan vragen "wanneer ben je geboren", "wat stem je", "wat is je inkomen", en dat soort dingen. Het is natuurlijk al een privacy issue. Ik zou dat zelf ook niet graag af willen staan, die informatie. Zeker in combinatie met locatie heb ik zoiets van, ja ik heb dat graag zelf in de hand. Je ziet bijvoorbeeld nu ook al die privacy issues die *Facebook* heeft, en daar kun je denk ik beter maar zo ver mogelijk van weg blijven, dat soort issues. Natuurlijk is het hele belangrijke informatie, maar het is ook heel gevaarlijk, het kan heel ontmoedigend werken voor mensen.

Welke wetgeving is van belang? (bijvoorbeeld privacy reglementen)

Goede vraag eigenlijk. Ik denk dat het vrij nieuw is, dus ik zou de juridische haken en ogen niet kennen. Ik denk dat je in principe, sowieso gelden de opt-in en opt-out regelingen. Voor het versturen van een nieuwsbrief moeten mensen hebben aangegeven dat ze die willen ontvangen. Dat is deel 1. Het is een actieve handeling om je locatie te delen, dus dat is niet echt een probleem. Je weet; 'ik check in', je drukt twee of drie keer op een knop, en dan is het pas gebeurd. Dus dat is op zich relatief goed in gedekt. Je kunt als je wil een privé profiel aanmaken. Dan kunnen alleen mensen die jij volgt, en die je terug volgt, die kunnen zien wat je doet. Alleen om de een of andere reden ranken wij nogal goed als mensen zoeken op een voor- en achternaam. Omdat de site gewoon in het Nederlands is en dan kom je al snel boven *Facebook* te staan. En je ziet dan toch wel dat mensen zich realiseren dat als er gezocht wordt op naam, op internet, dan komen mensen dus op *Feestje*. En dan zien ze dat ze in gecheckt zijn bij *Tony's crib*, en dat is dan hun huis, en dan denken ze ineens van: "Kut. Als ze zoeken op mijn naam weten ze eigenlijk meteen waar ik woon." Dat is wat je wel ziet.

Dat is iets waar wij, niet zo zeer qua regelgeving, maar dat is wel iets waar we rekening mee moeten houden, als een spot wordt aangemerkt als 'huis', dan is het waarschijnlijk in de toekomst zo dat die spot in principe niet gezien kan worden, behalve door mensen die jou volgen. Dus als jij in checkt in je huis, dan is dat prima, dan zien je vrienden dat en mensen die jij volgt, maar een wildvreemde die jouw check-ins bekijkt die kan dat niet zien.

Hoe gaan jullie om met user profiles? Word er data opgeslagen? Met of zonder toestemming van de gebruiker?

Ja in principe is het helemaal van je eerste check-in tot je laatst check-in, dat bewaren we gewoon. Gewoon net zoals de timeline bij *Facebook*. Dat is natuurlijk, je zou kunnen zeggen dat dat vervalt na een tijd. Maar dat is nog niet aan de orde nu.

Ja voor de rest zou ik niet weten wat voor privacy wetgeving er op van toepassing is. Ja kijk, je mag die informatie niet zomaar delen met andere mensen. Je mag het niet verkopen. Je hebt waarschijnlijk een soort plicht om er zorgvuldig mee om te gaan. Je mag niet je service wagenwijd open zetten. En voor de rest... ja... Het is vrij nieuw nog, toen privacy wetgeving werd geschreven waren er alleen nog email nieuwsbrieven denk ik. Ik denk wel dat met die cookie wet die ze nu willen gaan invoeren, moet je toestemming vragen om een cookie te plaatsen, derde partij, dus als je op *Facebook.com* een advertentie ziet, van een advertentiebedrijf, en dat advertentiebedrijf wil een cookie plaatsen, dan moeten ze toestemming vragen. *Facebook* niet, daar kom je actief, maar omdat met *Facebook* die advertenties mee komen en die cookies, ja dat is natuurlijk iets waar je op een gegeven moment misschien rekening mee moet houden. Maar ik zie daar niet echt... De problemen komen denk ik pas als je gaat targetten. Als je mensen gericht aanbieden gaat sturen, op wat voor manier dan ook. Dan moet je die targeting op de een of andere manier ergens op gaan baseren. En als je alleen maar weet waar iemand vandaan komt en of het een mannetje of een vrouwtje is, en zijn locatie, ja daar kan je wel iets mee, maar nog niet heel veel. Maar als je het actief wil gaan targetten zal je met privacy regelingen...

Het is precies hetzelfde als wanneer je gaat analyseren waar mensen het over hebben op *Facebook*. Dan is de vraag in hoeverre is dat.. Mensen sluiten met jou een overeenkomst om gebruik te maken van de service, maar die sluiten niet met jou de overeenkomst om advertenties gepusht te krijgen. Dan kom je alweer gauw in de buurt van privacy.. denk ik. Zolang je het in eigen beheer doet is het denk ik een ander verhaal, maar op het moment dat je dat gaat uit besteden dat zal wel moeten, want dat is met dat soort dingen best wel lastig om te doen, dan kom je al gauw in aanraking met privacy wetgeving.

Daarbij komt nog dat je enorm veel data voor nodig hebt, voor dit soort dingen. Want je moet dat wel goed doen. Het is wel een idee, je kunt op basis van het feit dat, stel wij kennen elkaar niet, maar onze vrienden groepen die checken allebei, allebei die groepen, check in bij een bepaald aantal kroegen hier in Amsterdam of in Utrecht. En ik kom uit Utrecht, maar jij uit Amsterdam, maar die vrienden zitten allebei, overal. Nou dan kun je aan de achterkant de links leggen dat onze vrienden zijn verbonden om het feit dat die samen wel eens in dezelfde kroeg komen. Als je die link heel vaak kan leggen, tussen heel veel mensen dan kun je, die vrienden groepen die komen redelijk overeen, goede kans dat diegene die daar in zit ook overeen komt. Dus als ik in Amsterdam kom, waar ik nooit kom, dan zou het best kunnen dat mij kroegen worden voorgeschoteld die jouw vrienden regelmatig bezoeken. En niet per sé mijn eigen vrienden ook, maar dat is wel ingewikkeld. Maar als je dus de vraag wil stellen niet "waar ben je nu", maar "waar moet ik heen?", dan is dat wel één van die dingen die je...

Het is natuurlijk anders als je mensen een keer een mailtje stuurt van "Ga eens een keer naar Utrecht toe, ga eens naar deze kroeg" of dat je ze, als ze in Utrecht zijn, en je weet dat ze daar niet vaak komen, dat weet je omdat ze meestal in checken in Amsterdam, in postcode 10. En dan checken ze ineens in in Utrecht, postcode 30, en dan hoeft je ze niet per sé. Dan heb je een hele pool data van dingen die in Utrecht gebeuren op zo'n netwerk, en dan is het natuurlijk de truc, je kunt niet al die data laten zien op een gegeven moment. Dan wordt het een zootje. Dan moet je die data gaan filteren. Dat kan dus het feit zijn dat wij vrienden hebben die regelmatig in dezelfde kroeg komen, dat ik dan jouw tips, aanbevelingen, eerder zie dan die van iemand anders. Dat is heel subtiel, eigenlijk.

Moet je aan je gebruikers communiceren dat je dat soort data opslaat?

Het is gewoon data-mining natuurlijk. Elke privacy reglement geef je impliciet toestemming voor, je geeft *Facebook* in principe toestemming om dit soort trucjes met je data uit te halen. Dat is op zich ook niet zo heel erg erg, het wordt in principe vervelend als ze het delen met derde partijen. Dat mag in principe niet zonder dat iemand daar toestemming voor geeft. Net als bij de *Albert Heijn*, als jij een bonuskaart hebt daar, het feit dat jij een kaart hebt betekend dat ze.. Je moet je bonus kaart maar eens scannen met je telefoon, dan zie je precies wat je in de *Albert Heijn* hebt gedaan. De vraag is natuurlijk; dit is nieuw, het is een zwarte doos waar dat soort dingen uit komen en het zal nooit het contact met vrienden, de tips van vrienden van "Hey ik ga vanavond naar Utrecht, waar moet ik zijn?", dat zal het nooit vervangen.

Als je echt niemand kent in Utrecht, en je wil toch weten waar je heen moet dan zijn dit wel tools waarmee je dat... waarmee je nieuwe dingen kan doen.

Hoe zit het met dataverbruik?

Je genereert heel veel data, dat gaat hard, maar het is niet alsof je een download winkel hebt voor films ofzo. Je vraagt een webpagina op, een app, dus dat is niet... Technisch gezien heeft het, zijn er niet echt, ja er zijn natuurlijk in de toekomst als je een grote hoeveelheid uitdagingen hebt...

Wat zijn jullie doelen voor de toekomst?

Twee vragen beantwoorden; waar zijn je vrienden nu? Dat is in principe redelijk makkelijk, maar de grote vraag blijft: waar moet je heen? Voor wat dan ook. Dat is een heel vrij doel. Het kan zijn om je vrienden te zien, dat kan zijn om iets te eten of drinken, dat kan zijn, een museum, dat kan alles zijn in principe. En dat is een soort stads-gids... Ja dat klinkt een beetje overdreven. Off-line en online weer een beetje binden. Iets wat je off-line doet, dat dat niet alleen maar off-line is, of andersom, maar dat dat samen komt. Maar dat is het doel van elke LBS in principe.

Met wie moet je rekening houden als je zo'n dienst opzet?

Ja met iedereen in principe. We hebben geen marketing budget, bewust, ja waarom zou je dat doen? Je kan beter je moeite, geld en tijd steken in het ontwikkelen van nieuwe dingen. En dan is het enige wat je kan doen luisteren naar mensen en hopen dat zij enthousiast worden en het tegen andere mensen gaan zeggen. Dus moet je luisteren naar iedereen.

Moet je rekening houden met netwerkproviders?

In principe leven wij gelukkig in een land waar telefoon-providers weinig te zeggen hebben over wat voor data je over het netwerk stuurt. Je hebt af en toe nog wel eens technische problemen, ze waren volgens mij laatst van service gewisseld, en als je naar www.telegraaf.nl gaat, zo heet die computer niet waar het op staat, die heeft een soort telefoonboek voor het internet voor dns-surey, die zet het om in een paar nummertjes en dat werkt soms niet. Die providers vertalen dat dan weer niet, die up-daten dat niet, daar loop je dan tegenaan. Maar voor de rest hebben we in NL gelukkig een situatie dat je op jouw telefoon over jouw internetverbinding alles mag doen wat je wil. Ten minste, binnen wettelijke grenzen, geen kinderporno natuurlijk. Dus je hebt niet te maken met... Ik zou niet weten wat je met netwerkproviders te maken hebt.

Heb jij misschien zelf een idee voor een stad als Utrecht, om mensen weer in winkels te krijgen?

Ja... Kijk.. Wat je zelf ook schrijft op een gegeven moment; dat mensen nu gaan shoppen om voor het sociale gedeelte. Je zou kunnen zeggen: Waarom gaan mensen niet meer de stad in? Misschien wel omdat er alleen maar *Hema's* en *Free record shops* en dat soort dingen zitten en er verder niets meer gezelligs is, dat kan natuurlijk. Of omdat ze alles via internet bestellen. Dat kan ook, of omdat er geen meerwaarde meer is ten opzichte van de *Albert Heijn* waar je tegenwoordig ook heel veel kan kopen. Ook non-food. Het is natuurlijk wel een moeite die je doet om op zaterdag vanuit Overvecht nog even naar de stad te fietsen. Daar moet wel iets tegenover staan. Als dat het sociale gedeelte.. Dat zou inderdaad dat kunnen zijn. Ik weet niet hoe je mensen nou echt meer de winkels in krijgt. Je zou kunnen voorstellen inderdaad dat als je heel gericht aanbiedingen gaat doen aan die mensen die toch de stad in komen voor dat sociale gedeelte, dat zou natuurlijk een idee kunnen zijn. Als jij toch al voor een sociale afspraak naar de stad gaat en je ziet dat er in de buurt bij de schoenenwinkel 50% korting is op alle paren schoenen, dan zou dat natuurlijk een reden kunnen zijn om naar die winkel te gaan.

GroupOn stijl, zou een reden kunnen zijn. Het voordeel van een LBS is natuurlijk dat je die aanbieding krijgt op het moment dat je daar bent. Niet van te voren via de mail, of de post, of ergens daar tussendoor, dat is natuurlijk...

Dan moet je natuurlijk gaan nadenken over push notificaties, hoe vaak je die krijgt, niet 6 berichten van verschillende winkels als je door een straat loopt.

Nee dat wil je ook niet, dat werkt niet, technisch kan dat natuurlijk heel makkelijk. Ik weet niet of je wel eens ergens bent geweest waar ze bluetooth naar je toe sturen? Daar wordt je ook niet gelukkig van. Dan sturen ze via bluetooth een soort mmsje met een of ander stom plaatje, daar word je niet.. Ik wordt daar in ieder geval niet gelukkig van. Dus dat is niet, ik denk dat vooral de truc is dat je het niet te opdringerig moet doen. Natuurlijk als je die berichten gaat pushen heb je heel veel lezers maar ik denk dat je weinig actie hebt. Als je het wat minder opdringerig doet, dat het effect wat je creëert veel groter is. Het is net als met elke vorm van marketing, het is belangrijk dat je het op het goede moment en op de goede plaats bij iemand aflevert.

Dan moet je in principe wel weten met wie je praat, lijkt me.

Ja aan de ene kant wel, afhankelijk van hoeveel dingen er zijn. Kijk als je hier op het Waterlooplein incheckt bij *the Coffee company* en er zitten daar maar vier of vijf winkels die iets hebben in de buurt, dan is het te overzien. Als je bij de Kalverstraat incheckt zijn er misschien wel honderd winkels. Als iedereen het dan zou doen, dan heb je een probleem, maar als het er maar tien zijn... Dan zou je al kunnen zeggen; sorteer het op degene die het dichtste bij zijn, die laat je als eerste zien. Je moet op een gegeven moment wel weten over wie je het hebt, maar je weet al heel goed waar je bent, dus het aanbod is al beperkt. Als je op internet een website bekijkt zijn er misschien wel een miljoen advertenties per dag die *Google* jou kan tonen op dat moment. Dus die moeten heel duidelijk weten van; wie is het? Want daar kun je... Je kunt het een beetje targeten op basis van ip adres. "Die woont in Nederland dus ik moet hem een Nederlandse advertentie laten zien." Maar daarna houdt het een beetje op. Je kan misschien ook nog zien of iemand vanuit een universiteit of een hogeschool inlogt, of thuis, maar dan houdt het wel een beetje op met de dingen die je zonder, die gewoon iedereen kan opvragen. Maar als je weet waar iemand is, op welk moment van de dag, vier uur 's nachts of tien uur 's ochtends, dan is denk ik de target als het gaat om dingen als leeftijd, geslacht, is veel minder belangrijk.

Wat je zou kunnen doen, als je incheckt in een café op de Oudegracht, dat je gewoon ziet wat voor aanbiedingen er om je heen zijn, en dan hoeft je in eerste instantie niet te targeten. Je laat er bijvoorbeeld maximaal vijf zien, en dan alleen de dichtstbijzijnde. Of at random, dat maakt niet zoveel uit. Je kunt wel willen targeten, maar als je die informatie niet hebt... En het wordt dan een soort verlengde van een bord die ze buiten zetten, dus in principe bereiken ze iedereen. Maar het voordeel is dat het via een ander kanaal gebeurt.

Uiteindelijk het effect meten is heel moeilijk, je weet niet zo goed hoe mensen binnen komen. Je weet dat er mensen zijn op dat moment, ze komen er al, dus je hoeft ze niet over te halen daar heen te gaan, dat scheelt al heel veel. Ze zijn er op dat moment, dus de stap om er iets mee te doen, als het iets is wat ze aanspreekt, de kans dat ze er wat mee doen is op dat moment erg groot. Kijk als jij er 's middags zit, om twee uur om een biertje te drinken na het winkelen met je moeder, vriend of vriendin, en je ziet dat er bij een restaurantje daar om 17.30 een twee of drie gangen diner voor €19 kunt eten, en je wil toch al gaan eten... Ik weet niet of je mensen dan overhaalt om te gaan eten als ze dat helemaal niet van plan waren, maar als ze er toch willen eten, dan is dat misschien de truc om ze bij DAT restaurant te laten eten, in plaats van een ander.

Wordt er al veel gebruik gemaakt van deals door bedrijven?

Je ziet dat bedrijven die op Twitter zoeken naar hun eigen naam. Als je incheckt bij *Café Noir*, en *Café Noir* zoekt op hun eigen naam, dan komt die check-in op een gegeven moment naar voren. Je ziet dat mensen formulieren invullen en soms snappen ze niet wat zo'n deal is. Dan vullen ze iets heel raars in, dat mensen een formulier moeten invullen en dat uitprinten, en dat werkt natuurlijk niet, het moet heel simpel blijven.

Ik denk dat we tegen de honderd deals hebben nu, alleen met kleine partijen. In Amsterdam, in Groningen (want daar zit de rest van *Feest.je*), in Utrecht een paar, heel veel bowling banen en party boerderijen of zo. Die maken dan deals aan, ja die kennen dat of zo. En dan heb je Amsterdam, Den Haag, Rotterdam, dat is wel zo'n beetje de pikorde.

Het is natuurlijk ook gratis nu, je ziet gewoon dat veel mensen, je moet natuurlijk een bedrijfsleider of een eigenaar hebben die het interessant vindt om zoiets te proberen. Maar je ziet wel dat mensen het leuk vinden om dat in ieder geval een keer te proberen. En dan mailen ze ook of je promotiematerialen hebt of dat je ze een keer kan helpen, dat soort dingen. Op zich is dat wel positief. Maar dat wordt natuurlijk de vraag; hoe ga je dat aanpakken? Nu moeten we ze met de hand goedkeuren, maar dat schiet natuurlijk niet op. Dus daar zijn we nu... Dat is de volgende stap als dadelijk dat weggeven van die awards klaar is, dan gaan we regelen dat mensen een spot kunnen opeisen. Dat ze automatisch deals krijgen voor... Deals in het algemeen, voor iedereen die incheckt, en deals voor degene die de koning of de koningin wordt, dat je twee dingen hebt. Daar hebben we hoge verwachtingen. We hopen dat we daar veel deals mee binnen trekken, maar dat het voor gebruikers ook nog eens heel duidelijk wordt van; ok, je kan wel *Foursquare* gebruiken, moet je vooral doen, niets mis met *Foursquare* natuurlijk. Maar realiseer je wel dat die geen deals hebben op Nederlandse sites. Het is bijvoorbeeld heel lastig om een *Foursquare* spot te claimen. Dan moet je vier, vijf weken wachten op een sticker, en dat is gewoon.. bij ons kan dat in principe binnen 5 minuten. We hebben het voordeel van de locatie en dat moeten we ook zoveel mogelijk uitbuiten.

Die aanbiedingen, die deals, daar moeten we het uiteindelijk van hebben. Ik denk dat dat heel leuk wordt als dat gaat lopen.

Dan is een volgende vraag inderdaad; zorg dat het er niet teveel worden want dan is het niet meer leuk. Dat wordt gewoon, we moeten nog een mechanisme bedenken om het te testen, van ok, we doen het nu op deze manier, wat is het effect? Dat is een van de meest lastige dingen, het is niet alleen een technisch probleem. Alle

andere dingen zijn over het algemeen technisch, en als je daar maar lang genoeg over nadenkt en slim genoeg, dan komt het moment wel, dan vind je wel een oplossing, maar het is natuurlijk veel lastiger om in spots, er in te krijgen, dat mensen begrijpen, dat klinkt heel naar, maar dat duidelijk is wat de bedoeling is, hoe het werkt... Dat gaan we vanzelf zien hoe dat af gaat lopen. Vijf jaar, vier jaar geleden begreep niemand *Twitter*, en nu zie je ook steeds meer mensen en bedrijven die dat gebruiken en die dat snappen, en weten HOE je het moet gebruiken, dus ik heb daar vertrouwen in. Elke smartphone die er bij is is natuurlijk alleen maar positief voor dit soort dingen. Uiteindelijk, daar gaat het uiteindelijk om. Van smartphones moet je het hebben en dat zit ook nog. Een scherm is natuurlijk klein, dus als je heel veel functionaliteit hebt moet je dat heel slim verpakken wil je door de bomen het bos nog zien. Maar ja, dat is, iets wat je alleen maar kunt uit proberen. Er is geen boek voor waar dat in staat, anders hadden we hem al gekocht, maar dat moeten we dus allemaal uitzoeken.

Heel de business unit is gericht op het verzamelen van Points of Interest (POI's). Alles waar mensen, local businesses, waar mensen in geïnteresseerd zouden kunnen zijn. Winkeltjes, restaurantjes, dat soort dingen.

We verzamelen data, we verrijken die data, proberen die data op de een of andere manier aan de man te brengen.

Het verzamelen van die data, hoe gaat dat precies in zijn werk?

Op verschillende manieren, belangrijkste is de databronnen die we kopen. Van externe partijen. We hebben contracten met Gouden Gids enzo, dat soort dingen. We hebben eigenlijk verschillende bronnen.

Het gaat om het verzamelen van POI's. Eerste bron is multinet, dat is eigenlijk het product van voormalig Tele Atlas. Tele Atlas is de kaartenproducent die een paar jaar geleden door Tomtom gekocht is. Er zijn wereldwijd eigenlijk maar twee kaarten producenten. Dat zijn Tele Atlas en Navteq. Navteq is gekocht door Nokia, en Tele Atlas hebben wij dus. Google is nu zelf hard bezig om zijn eigen kaarten te produceren, maar...

Wat staat er op Google maps dan, hun eigen kaarten?

Dat zijn grotendeels onze kaarten. Maar zij combineren tegenwoordig heel veel bronnen. Op de kaart kan je het altijd rechtsonderin staat waar de bronnen vandaan komen. Op sommige plekken staat een lijst van zes verschillende bronnen geloof ik, die ze op de één of andere manier met elkaar mergen, dat er iets uitkomt. Maar ze zijn ook bezig om zelf data te verzamelen. De meeste data op dat gebied is dus bij ons of bij Nokia.

Zij hadden al een set van POI's, hoe ze die precies zelf verzameld hebben weet ik niet. Dat zal ook een deel handwerk geweest zijn, ze hebben allemaal mannetjes met auto's op de weg. Maar ook veel contracten. iLocal, de data daarvan, is ook gedeeltelijk contracten afsluiten en gedeeltelijk, op de website een mogelijkheid dat bedrijven zichzelf aanmelden.

Mensen kunnen het ook gewoon zelf doen.

Zijn daar kosten aan verbonden?

Niet om gewoon geregistreerd te worden, nee. Je kan op dit moment een apart pakket krijgen waarbij je hoger in de zoekresultaten komt. Dus dat je beter gevonden kan worden. Maar gewoon geregistreerd worden in onze database dat is gewoon voor iedereen gratis. Waar we nu mee bezig zijn is kijken of de data ook automatisch verzameld kan worden. Door websites te crawlen. Het internet opgaan en kijken, 'Welke websites kan ik vinden van bed-

rijven?' en als ze daar een adres op hebben staan dan kan je daar een nieuwe POI van maken. Alleen het is een erg moeilijk proces om dat volledig automatisch te doen omdat het lastig is om zo die content van die websites goed af te kunnen halen. Zonder dat daar fouten in zitten. Maar dat zijn eigenlijk de manieren waarop we nu aan content komen.

De volgende stap is het verrijken van die content. Naast een naam van een plaats, en een adres willen we ook openingstijden hebben, we willen eigenlijk weten wat voor producten/diensten ze eigenlijk hebben. Daar zat traditioneel heel veel handwerk in. Bedrijven opbellen en vragen 'Wat doen jullie?'. Daar zijn we ook aan het kijken of we dat steeds meer kunnen automatiseren. Dus als je een url van een website hebt, dan kun je die website opzoeken en kijken welke keywords komen daar nou vaak voor op die website. Dan is dat waarschijnlijk wat ze doen.

Hebben jullie veel bedrijven die uit zichzelf data toevoegen, of komt het voornamelijk vanuit jullie kant?

Op dit moment nog voornamelijk vanuit ons. Dat zijn processen die we sterker willen maken, dat het meer vanuit de bedrijven zelf komt. Bij iLocal gebeurde dat wel, dat had in Nederland wel een sterke naam, maar vanuit Tomtom gebeurt dat nog niet, het is nog niet heel erg bekend. Mensen kennen Tomtom natuurlijk wel, maar dan denken ze aan de navigatiesystemen, en nog niet aan de volgende stap "als je een navigatiesysteem hebt dan moet daar ook informatie in zitten, voor waar je nou heen wil rijden." Met het actief verzamelen van die data zijn we nog niet heel lang bezig.

Dat is één van de dingen waar we nu aan werken, om bekendheid te krijgen op het gebied van zo'n advertentie platform.

Hoe gaat dat in zijn werk?

In eerste instantie door gewoon, door gewoon een goed product neer te zetten. Waarin de contacten die we nu al hebben duidelijk naar voren komen. En dat je op die manier gewoon veel gebruikers bereikt. Dan krijgen mensen vanzelf het idee: "Hey, daar moet ik ook in zitten."

Dus als je maar genoeg data hebt dan komen mensen vanzelf bij je terecht?

Klopt, ja. Traditioneel was ook in onze navigatie apparatuur de lijst POI's, dat was een statische lijst met

een aantal categorieën, daar zaten dan de POI's in. Je kon zoeken op categorieën en daar gewoon door heen bladeren. Het plan is ook om dat wat dynamischer te maken. Dat je bijvoorbeeld aan de hand van de huidige tijd, of de plek waar je rijdt, dat je meer relevante data aangeboden krijgt, voor jou op dat moment. Op het moment dat je dat gaat doen, dat je een verschil gaat aanbieden in de ranking van die content dan krijg je dat het belangrijk wordt voor die bedrijven om zich goed te representeren. Als het even makkelijk is om gevonden te worden dan maakt het ook niet echt uit wat je doet.

Slaan jullie ook data van gebruikers op om die search wat gericht te maken?

We slaan nog geen persoonlijke data op, dus wij kunnen niet zien 'die en die heeft vorige week naar dat restaurant gezocht'. Maar we slaan wel het aantal queries op een bepaald moment op. Maar dat is niet herleidbaar tot een persoon. Je kunt wel daar uit halen; wat zijn de momenten waarop mensen naar kampeer artikelen zoeken?

Hebben jullie daar inmiddels al data over?

Ja, het zit alleen nog niet in het product verwerkt. Dat staat wel in de planning, het is alleen nog niet heel concreet wanneer.

En het product, dat werkt op de website en in de navigatie systemen neem ik aan?

Ja, we zijn nu sinds een jaartje Tomtom Places. We hebben de website van iLocal overgenomen, dus dat is gewoon een Gouden Gids achtige website waar je naar plaatsen kan zoeken. Daarnaast zijn we bezig om de zoekfunctionaliteit die wij bouwen, om dat in de navigatiesystemen te krijgen. Wij ontwikkelen zelf onze zoekmachine eigenlijk, die onze data doorzoekbaar maakt. Diezelfde zoekmachine kun je op het web of in de navigatiesystemen...

Zijn er nog plannen om dat op smartphones te laten werken?

Ja. Zijn we mee bezig. We zijn nu alleen met iPhone bezig. Als het goed is komt die over een maand of twee, drie uit. Het idee is om een gratis app te maken waarin je om je heen naar relevante plaatsen kan zoeken, en een route er naar toe, maar niet echt turn-by-turn navigation zoals we dat noemen. We hebben al een iPhone app, die is erg duur, €70 of zo iets, maar dat is wel het hele navigatieproduct. Daar zit veel meer in. Het idee is om hier een opstap app van te maken, dat mensen zien "Hey dit is nuttig". Dat we ook binnen die application een verwijzing maken naar die andere volledige app.

Hebben jullie daar een doelgroep bij in gedachten? Waarom is er bijvoorbeeld voor de iPhone gekozen?

Weet ik eigenlijk niet. Ik heb niet in dat keuzeproces gezeten. De reden voor iPhone ten op zichte van, volgens mij Android, was dat toen we er vorig jaar aan begonnen was dat een veel makkelijker platform om te beginnen. Was toen ook populairder.

Bij Android moet je natuurlijk ook rekening houden met verschillende schermformaten e.d.

Ja volgens mij is dat ook één van de dingen waar onze developers aan gedacht hebben. Het is gewoon eenvoudiger om met een apparaat software te ontwikkelen.

Terug naar jullie search proces...

Ja we hebben dus verschillende bronnen vanwaar we die POI's halen. Binnenshuis zitten die categorieën definiëren, waarin we al die POI's plaatsen. Gedeeltelijk gebeurd dat automatisch en gedeeltelijk doen we dat met de hand. We proberen daar keywords aan te hangen, vooral gericht op welke producten worden er nou verkocht? Het idee is ook om bedrijven en mensen van buitenaf zichzelf te kunnen laten taggen. Dus die keywords is allemaal erg gecontroleerd op dit moment. Het idee is om dat wat meer open te maken, dat gewoon iedereen daar termen aan kan hangen, en dat je een wat rijkere beschrijving krijgt van.. Misschien ook wat ruiziger, maar we moeten nog maar zien hoe we daar mee om gaan.

Vervolgens wordt dit geheel, hier wordt een database van gebouwd. Vervolgens wordt dat in een search engine gestopt. Dus er wordt een search engine gebouwd die daar toegang toe geeft. Die data gaat in de kaarten. Daarnaast hebben we een afdeling die werkt aan talen, dus de translations van alle termen die we hebben. Bestemming, dus als je een werkwoord hebt bijvoorbeeld dat je daar de stam van neemt. De versimpeling van de woorden, en synoniemen, dat is ook belangrijk; dat je weet welke woorden verwijzen naar hetzelfde typen place, product. Hier zitten mensen met verschillende talenkennis die dus per taal kijken naar welke lijstjes...

In hoeveel talen moet dit gaan werken?

iLocal was Nederlands, en het wordt wereldwijd, is het plan. Dit jaar moeten we naar acht talen volgens mij. Nederlands zat er al in vanuit iLocal. De andere grote Europese talen staan nu bovenaan.

Krijgen jullie nou ook al feedback vanuit het bedrijfsleven, dat mensen meer klanten binnen krijgen via Tomtom Places?

De bedrijven waar we ze naartoe sturen? Dat is tot nu toe nog heel erg moeilijk meetbaar. Maar we denken er nu wel over na; kunnen we dat? Als je dat kan meten is dat natuurlijk belangrijk voor je verdienmodel. Dan kun je direct gaan zeggen: "Joh, wij hebben een klant bij de afgeleverd. Daar willen we wel wat geld voor zien."

Er zijn ideeën voor. Wat je kan doen is als je de GPS locatie van iemand hebt, dan kun je kijken waar hij heen gelopen is. Dit is erg privacy gevoelig. Dat is iets wat we nog niet doen, maar we zijn er wel over aan het denken. Hoe kunnen we gebruikers daar nou comfortabel mee laten zijn, dat ze die data met ons delen?

Dat mag ook onder de Nederlandse wetgeving?

Met toestemming van de gebruiker wel, ja. Op dit moment doen we dat nog niet, maar we kijken wel of het haalbaar is. Andere dingen waar we aan denken is met coupon-structuren werken. Dat je via Tomtom een aanbieding krijgt met een barcode er op, ofzo. Dat je dan naar die plaats toe gaat met een scanner. Dat heeft zowel voor de gebruiker, als voor ons, als de andere kant heeft dat... kan dat nut hebben. Maar dat zijn dus dingen die nog in ontwikkeling zijn, op dit moment weten we nog niet wie waar geweest is.

Dus wat we verder doen, via die search engine maken we voor het web, voor de navigatie en voor de iPhone maken we die data beschikbaar. Vervolgens loggen we waar iemand op geklikt heeft of wat er als destination ingesteld is of reviews, we hebben ook reviews op de website. Dat wordt gelogd, geanalyseerd en teruggekoppeld naar de data. Wat je hier uit kan halen, omdat het niet persoonlijk is, wat we er uit kunnen halen is 'wat voor type plekken wordt er wanneer bezocht?'.

Hebben jullie al veel gebruikers? Valt dat te meten?

Dat is te meten, ja. Alleen, het aantal unieke gebruikers van de website weet ik niet. Vorig jaar had onze website iets van 2 miljoen zoek opdrachten. Dat is vrij aardig, maar dat kan veel groter worden natuurlijk, als we wereldwijd gaan. Dat was alleen in Nederland.

Als je kijkt naar onze website dan komen de meeste gebruikers eigenlijk via een zoekmachine, dus van Google bijvoorbeeld. Dus als je in Google zoekt naar kappers in Amersfoort, dan krijg je als een van de bovenste resultaten onze Places pagina. Als mensen daar op door klikken loggen we dat ook.

Is Google uit zichzelf niet al een concurrent?

Ja. Zij hebben ook inderdaad pas een plaats-recommender gelanceerd. Zij zijn flink aan het investeren in alles met local search. Zij hebben op dit moment nog een veel generieker product wat nog niet heel veel kennis heeft over de producten en diensten van POI's. Op dat punt denken wij een slag te kunnen maken. Ook door de contracten waar we nu mee bezig zijn. Zoals bijvoorbeeld met Gelbe Seiten (Gouden Gids in Duitsland). iLocal had al een vrij sterk netwerk en dat zijn we nu aan het uitbouwen om op die manier echt goede data te krijgen. Google heeft dat nog veel minder. Ze hebben heel veel automatische processen en daardoor kunnen ze heel snel een groot deel van de wereld targetten. Maar nog niet op een hoog niveau.

Zijn er nog andere concurrenten?

Ja, er zijn heel veel spelers op dit gebied op dit moment. Dingen zoals Yelp. Dingen zoals de Gouden Gids, het is een beetje geven en nemen. Eigenlijk hebben we gedeelde doelen. Andere telefoonaanbieders, zoals Nokia, doet hard zijn best op dit gebied.

Maar de kracht van Tomtom zit hem dan in de contracten die jullie hebben, en de kaarten?

Ja. Het feit dat wij gewoon al een hele grote productbasis hebben op dit moment. Heel veel klanten die al rondreiden met onze apparaatjes. Op het moment dat wij onze dienst ook kunnen gaan aanbieden via die navigatieapparatuur dan bereik je veel sneller gebruikers. Ook echt op het moment dat ze on the road zijn. Op die manier denken we straks meer data te kunnen verzamelen, vanaf de gebruikers. En veel meer gebruikers te bereiken.

Kan de software ook op bestaande systemen worden geïnstalleerd dmv een update, of moet er nieuwe hardware aangeschaft worden?

Dat kan met een update, softwarematig. Het kan met terugwerkende kracht op oudere systemen worden geïnstalleerd.

Op dit moment zitten wij dus nog niet echt local, maar we hopen binnenkort op de iPhone aanwezig te zijn. Wat we wel zien via de navigatie is dat er wel heel veel behoefte is vanuit de gebruikers, als ze on the road zijn, ergens op een plek waar ze niet bekend zijn, om daar gewoon meer informatie te krijgen over hun omgeving, wat er allemaal te vinden is.

Dat krijgen we, er zijn heel veel mensen die, ondanks dat het in onze navigatie structuur nu nog best lastig is om nu de goede place te vinden in onze POI database, wordt het wel veel gebruikt. Er wordt al veel gezocht in dat systeem. Je ziet dat mensen het willen. Het is aan ons nu om dat beter te maken. Er liggen volgens mij nog heel veel mogelijkheden.

Introduction

Survey	Online Enquête LBS & Mobile Marketing
Username	thomas.vente@gmail.com
Options	
Include Raw Data	true
Include Open-Ended Text	false
Report Timestamp	5/17/2011 2:36
Data Filter	Entire Dataset

Survey Statistics Report

	Count	Completed / Started	Completed / Viewed	Started / Viewed
Completed	102	87,93%	32,48%	
Started	116			36,94%
Viewed	314			

Q2**Grouping / Filter Analysis**

Geslacht:			
Man	56		50,45%
Vrouw	55		49,55%
Total	111		
Mean	1,50		
Standard Dev.	0,50		
Variance	0,25		

Q3**Grouping / Filter Analysis**

Opleidingsniveau voltooid of mee bezig:			
Lagere school	0		0,00%
Middelbare school	1		0,90%
MBO	11		9,91%
HBO	79		71,17%
WO	17		15,32%
Anders, namelijk	3		2,70%
Total	111		
Mean	4,09		
Standard Dev.	0,63		

Variance	0,39	
Other Option [Anders, namelijk]		
	eu?	
	Amerikaans B.A.	
	huishoudschool	

Q20 Grouping / Filter Analysis		
Heeft u een smartphone?		
Ja	90	79,65%
Nee	23	20,35%
Total	113	
Mean	1,20	
Standard Dev.	0,40	
Variance	0,16	

Q21 Grouping / Filter Analysis		
Operating systeem		
iPhone/iOS	37	41,57%
Android	26	29,21%
Blackberry	13	14,61%
Symbian	4	4,49%
Anders, namelijk	9	10,11%
Total	89	
Mean	2,12	
Standard Dev.	1,29	
Variance	1,66	
Other Option [Anders, namelijk]		
	Windows Phone 7	
	Windows mobile	
	Windows Mobile	
	Windows, niet 7, oudere versie	
	Windows Phone	
	ik heb geen idee	
	Windows Phone	
	windows mobile	
	Maemo	

Q6 Grouping / Filter Analysis

Wat verwacht u dat deze mobiele dienst voor u zou moeten doen?

Informatie verschaffen	66	45,21%
Kortingen	64	43,84%
Entertainment	16	10,96%
Total	146	
Mean	1,66	
Standard Dev.	0,67	
Variance	0,45	

Q7 Grouping / Filter Analysis

Past zo'n mobiele dienst in uw dagelijkse routine?

Ja	52	62,65%
Nee	31	37,35%
Total	83	
Mean	1,37	
Standard Dev.	0,49	
Variance	0,24	

Q8 Grouping / Filter Analysis

Zou u voor zo'n mobiele dienst eenmalig willen betalen?

Nee	47	56,63%
Ja, tot €1,-	29	34,94%
Ja, €1,- tot €3,-	7	8,43%
Ja, meer dan €3,-	0	0,00%
Total	83	
Mean	1,52	
Standard Dev.	0,65	
Variance	0,42	

Q9 Grouping / Filter Analysis

Lijkt deze dienst op iets wat u al kent?

Nee, ik vind dit innovatief	47	57,32%
Ja, dit lijkt op iets wat ik al ken, namelijk	35	42,68%
Total	82	

Mean	1,43	
Standard Dev.	0,50	
Variance	0,25	
Other Option [Ja, dit lijkt op iets wat ik al ken, namelijk]		
	Foursquare, feest.je	
	Er lopen veel projecten op dit gebied, alleen niet echt met acties verdienen bij inchecken.	
	FourSquare icm specials	
	FourSquare / Feest.je / Hotpot e.d.	
	Productvergelijkingssites (evt mobiele versie of app-versie)	
	Het is een aanvulling op platformen als Facebook places en FourSquare	
	foursquare	
	Foursquare, FB locations	
	Foursquare min de acties	
	Foursquare met zijn specials	
	mix van foursquare (4SQ) en google	
	foursquare	
	Foursquare, Gowalla, Facebook Places, Groupon	
	Niet direct een dienst die al bestaat, maar is wellicht een soort fusie van Foursquare/Gowalla en Groupon. Zou opzich nog wel ruimte voor kunnen zijn in de markt.	
	foursquare	
	checkpoints	
	Foursquare	
	je hebt een app die alle producten in een supermarkt laat zien desalnietemin toch een innovatief idee :)	
	Foursquare, Feest.je, Groupon, Yelp, Shopkick, Placecast	
	4SQ but better.	
	Foursquare	
	niet iets specifiek, maar het is niet echt innovatief naar mijns inziens.	
	de ouderwetse spaar kaarten maar dan mobiel	
	Foursquare	
	forsquare, facebook places	
	Foursquare	
	Foursquare	
	het concept doet me denken aan foursquare	
	internetkorting.nl couponcode.nl maar nog niet als applicatie	
	groupon	
	FourSquare, Feest.je	
	de app van albert hein	

	groupon	
	Foursquare	
	op mijn idee voor iPad concept	

Q23 Grouping / Filter Analysis		
Mocht u zelf niet geïnteresseerd zijn in een dienst als dit, denkt u dat het voor iemand anders wel nuttig zou kunnen zijn?		
Ja	81	97,59%
Nee	2	2,41%
Total	83	
Mean	1,02	
Standard Dev.	0,15	
Variance	0,02	

Q11 Grouping / Filter Analysis		
Bent u bereid voor zon dienst een profiel aan te maken?		
Ja, dit is geen probleem	50	60,98%
Nee, dit is te veel moeite	32	39,02%
Total	82	
Mean	1,39	
Standard Dev.	0,49	
Variance	0,24	

Q12 Grouping / Filter Analysis		
De dienst kan uw gedrag registreren om bijvoorbeeld een meer gepersonaliseerd aanbod te kunnen doen, hoe zou u dit ervaren?		
Ik heb hier geen moeite mee	59	71,08%
Ik heb hier wel moeite mee	24	28,92%
Total	83	
Mean	1,29	
Standard Dev.	0,46	
Variance	0,21	

Q13 Grouping / Filter Analysis		
Zou u de dienst willen aanpassen/personalisieren naar uw persoonlijke voorkeur?		
Ja, ik vind dit een toegevoegde waarde	69	83,13%
Nee, ik vind dit te veel moeite	14	16,87%
Total	83	

Mean	1,17	
Standard Dev.	0,38	
Variance	0,14	

Q14 Grouping / Filter Analysis		
Zou u de dienst nog gebruiken als er advertenties op voorkomen?		
Ja	49	59,04%
Nee	34	40,96%
Total	83	
Mean	1,41	
Standard Dev.	0,49	
Variance	0,24	

Q15 Grouping / Filter Analysis		
Hoeveel marketing uitingen heeft u de afgelopen maand op uw mobiele telefoon gezien/ontvangen?		
Geen	38	37,25%
1-3	26	25,49%
3-6	10	9,80%
meer	28	27,45%
Total	102	
Mean	2,27	
Standard Dev.	1,23	
Variance	1,51	
Hoeveel van deze uitingen waren aan u persoonlijk gericht?		
Geen	75	73,53%
1-3	20	19,61%
3-6	3	2,94%
meer	4	3,92%
Total	102	
Mean	1,37	
Standard Dev.	0,73	
Variance	0,53	

Q17**Grouping / Filter Analysis**

Van hoeveel van deze uitingen heeft u zelf expliciet toestemming gegeven?

Geen	77	75,49%
1-3	20	19,61%
3-6	2	1,96%
Meer	3	2,94%
Total	102	
Mean	1,32	
Standard Dev.	0,66	
Variance	0,44	

Q18**Grouping / Filter Analysis**

Hoe vaak heeft u de afgelopen maand een aankoop gedaan via uw mobiele telefoon? (ringtones, wallpapers, betaalde apps, backgrounds etc.)

Geen	60	58,82%
1-3	33	32,35%
3-6	6	5,88%
Meer	3	2,94%
Total	102	
Mean	1,53	
Standard Dev.	0,74	
Variance	0,55	

Q19**Grouping / Filter Analysis**

Ik ben bereid om toestemming te verlenen voor marketinguitingen aan een bedrijf als...

Ik goede ervaringen heb met dit bedrijf.

Geheel oneens	5	4,95%
Oneens	0	0,00%
Gedeeltelijk oneens	2	1,98%
Geen mening	12	11,88%
Gedeeltelijk eens	27	26,73%
Eens	48	47,52%
Geheel eens	7	6,93%
Total	101	
Mean	5,26	
Standard Dev.	1,30	
Variance	1,69	

Ik lange tijd klant ben bij dit bedrijf.

Geheel oneens	7	6,93%
Oneens	2	1,98%
Gedeeltelijk oneens	8	7,92%
Geen mening	15	14,85%
Gedeeltelijk eens	30	29,70%
Eens	35	34,65%
Geheel eens	4	3,96%
Total	101	
Mean	4,78	
Standard Dev.	1,49	
Variance	2,23	

Een bekende van mij dit bedrijf aanraad.

Geheel oneens	8	7,92%
Oneens	9	8,91%
Gedeeltelijk oneens	10	9,90%
Geen mening	23	22,77%
Gedeeltelijk eens	33	32,67%
Eens	18	17,82%
Geheel eens	0	0,00%
Total	101	
Mean	4,17	
Standard Dev.	1,48	
Variance	2,20	

Deze transparant is over de verwerking van mijn persoonlijke gegevens.

Geheel oneens	4	3,96%
Oneens	5	4,95%
Gedeeltelijk oneens	8	7,92%
Geen mening	10	9,90%
Gedeeltelijk eens	26	25,74%
Eens	27	26,73%
Geheel eens	21	20,79%
Total	101	
Mean	5,12	
Standard Dev.	1,61	
Variance	2,61	

Ik zelf kan kiezen met welke frequentie ik berichten ontvang

Geheel oneens	3	2,97%
Oneens	2	1,98%
Gedeeltelijk oneens	5	4,95%
Geen mening	15	14,85%
Gedeeltelijk eens	21	20,79%
Eens	31	30,69%
Geheel eens	24	23,76%
Total	101	
Mean	5,36	
Standard Dev.	1,47	
Variance	2,15	

Ik zelf kan kiezen wat voor soort berichten ik ontvang. (SMS, MMS, Email etc.)

Geheel oneens	5	4,95%
Oneens	3	2,97%
Gedeeltelijk oneens	7	6,93%
Geen mening	8	7,92%
Gedeeltelijk eens	21	20,79%
Eens	38	37,62%
Geheel eens	19	18,81%
Total	101	
Mean	5,25	
Standard Dev.	1,58	
Variance	2,51	

Ik gemakkelijk de verleende toestemming kan intrekken.

Geheel oneens	3	2,97%
Oneens	0	0,00%
Gedeeltelijk oneens	2	1,98%
Geen mening	10	9,90%
Gedeeltelijk eens	4	3,96%
Eens	30	29,70%
Geheel eens	52	51,49%
Total	101	
Mean	6,07	
Standard Dev.	1,37	
Variance	1,89	

Plan of action

Name of student: Esther Kool

ID code: 1506089

Tutor: Peter de Groot

Topic (general description)

Location Based Services for retailers in the heart of the city centre of Utrecht

The problem definition

The combination of online shopping and the shifting of shopping in the city centre to the peripherals of the city have created a problem for retailers in the city centre of Utrecht. Retailers themselves have not consciously chosen to use the internet as a channel for reaching consumers but rolled into it, creating websites with simple information like their address and sometimes small web shops. These web shops can be counter productive as it reduces impulse buying. The integration between online and offline shopping could be improved. Entrepreneurs in the Utrecht city centre would like to use new cross-media possibilities, like location based services, to achieve this.

Research origin

My graduation research was requested by the entrepreneurs of the city centres of Utrecht and Enschede, to be executed by the crossmedialab at the HU. I am currently doing my placement there. The formal client being the crossmedialab.

Costs of the research

Most of my research can be done without charge. I intend to use the resources of the medi-atheek and university library for my literature research. To proceed with the interviews I can travel to the interviewees using my student public transport card. My plan is to use a free web service like studentenenquete.nl to publish my questionnaire. Potential funding applications are not of importance as I do not foresee my research costing a lot of money. Should costs arise I will create a budget to be approved by the research group.

Tutoring

I have weekly meetings with Kees Winkel, my tutor within the lab, as well as weekly intervention meetings with Peter de Groot, my tutor within the HU.

Planning

Week	Date (wed)	Planning Lab	Planning research
5	2 feb 2011	Present research proposal	Write research plan
6	9 feb 2011		Start literature research
7	16 feb 2011	Present research plan	

Week	Date (wed)	Planning Lab	Planning research
8	23 feb 2011		Preparation and assessment expert interviews (create interview protocol)
9	2 mrt 2011		
10	9 mrt 2011		concept interviews
11	16 mrt 2011		Conduct expert interviews
12	23 mrt 2011	Discuss progress lector/tutor	paper applied research finished (literature research)
13	30 mrt 2011	Assessment research group	
14	6 apr 2011		
15	13 apr 2011		
16	20 apr 2011		Finalise interviews, workshops & create survey
17	27 apr 2011		
18	4 mei 2011		Write LBS concept & begin draft research report
19	11 mei 2011	Discuss progress lector/tutor	
20	18 mei 2011	Assessment research group	
21	25 mei 2011		Concept thesis
22	1 jun 2011		final version thesis

Type of question and research

My research concerns a policy question, as it is a new way for retailers to interact with consumers. The research is evaluative, as I intend to evaluate online and offline shopping behaviour, and from there; the applicability of LBS to a successful marketing strategy.

Pre-research

Literature search (indicate which literature)

I've started reading mostly journal articles. General topics I have encountered so far are different techniques in applying LBS technology (Vu, Ryu & Park, 2008; Derhab & Badach, 2007; Hashem & Kulik, 2010, et cetera), LBSs and mobile business strategies (de Reuver & Haaker, 2009), and case studies of mobile marketing (Millenium Media Campaign Summary, 2010).

The articles about applying LBS technology are mostly written on topics like improving the speed and capabilities of LBSs and about warranting consumer privacy. These topics are not very interesting for my own research as I don't intend to build a LBS myself.

When I start my further literature research, I would like to read more about
the changes in shopping behaviour (due to the rise of the internet)
shopping and tourist behaviour in the Netherlands,
shopping behaviour in Utrecht
mobile marketing and mobile shopping behaviour
LBS technology
(un)successful commercial application of LBSs
service bundling

I will consult online journal databases and resources like Google scholar to find journals related to my research (like the above mentioned topics).

Some of the books I'll be looking into are:

- Location-Based Services by Jochen Schiller and Agnès Voisard
- Location-Based Services: Fundamentals and Operation by Axel Küpper
- Mobile location services: the definitive guide by Andrew Jagoe
- Mobile Marketing by Cindy Krum
- Mobile Marketing: Achieving competitive advantage through wireless technology by Alexander Michael & Ben Salter
- Mobile commerce: technology, theory and applications by Brian Ernest Mennecke, Troy J. Strader
- Het nieuwe winkelen by Cor Molenaar
- E-shopping by David Schneider
- Shopping Tourism, Retailing And Leisure by Timothy Dallen & Timothy Dallen J.
- Shopping 3.0 by Cor Molenaar

Major controversies I've encountered are mostly based on the utility of mobile shopping and LBSs. Can they really add to the shopping experience? The reasons behind the decline in consumers in the city centres seem fairly clear-cut, but I have yet to read up on how analysts predict shopping behaviour will evolve.

expert interviews (indicate whom you consider to be experts?)

I would like to talk to representatives of the retail section of the city centre ('vereniging centrum ondernemers'), and possibly, some of the shop owners themselves after defining the retail section an LBS would be most suited for. I would also like to contact employees/creators of existing Location Based Services. Of course I also intend to ask the members of the cross-medialab about their experiences with LBS. Finally, it would be wise to talk to the people in Enschede who are conducting similar research.

Main research

Survey research (Describe population and N)

The survey I intend to do to test my LBS concept would be consumers in Utrecht, specifically smartphone users. My questionnaire will need to be spread to a wide audience to ensure reliability, so my aim is to receive at least a hundred responses. I will try to achieve this number by spreading the questionnaire both digitally and by simply printing and handing them out (perhaps leaving them in collaborating stores).

In-depth interviews (How many and with whom?)

This section of the research plan is to be defined further within the course of my research. First I will need to define which section of Utrecht (type of retailers, geographical location, et cetera) would be most suited to use LBS technology. Besides that, I am also dependent on the cooperation of the retailers themselves. Without willing interviewees it will be hard to collect my data. The number of interviews I will conduct will be dependent on the above mentioned factors as well, though my aim is to get at least five in depth interviews with different parties.

The current prognosis is that the participants in my research will be:

- Retailers in the Utrecht city centre
- Representatives of the retail section ('vereniging centrum ondernemers') in Utrecht
- Creators/employees of currently existent LBSs
- Research group members of the CrossmediaLab

Group discussions (How many? Characteristics of respondents?)

After defining the guidelines of a general LBS, I intend to organise a creative (e.g. brainstorm) group discussion to come up with a concept for an LBS based on the specific stores in Utrecht I have decided to focus on. I will start off with one group discussion with the members of the research group at the Crossmedialab. Should this discussion fail to provide me with acceptable results, I can repeat the process with the digital communications students of my tutor, Kees Winkel. After one or more concepts have been decided upon, I will test what concept features are the best by means of the earlier mentioned survey.

Comparative case study (Which cases, compared on what basis?)

The aim is to find between five and ten case studies of existing location based services. I want to look at their business plans and marketing strategies, and figure out which factors are (un) successful. Examples of services I could look at include FourSquare, Gowalla, Groupon, Feestje and Yelp.