

Freitimer - a Location-based Tool

Innovative Location Based Services



In June I visited i-locate, a start-up for mobile geo-services in Regensburg, Germany. The associates of i-locate, Ralph Buchfelder and Fabian Angerer, invited me for a talk about their new mobile service, Freitimer. Freitimer is a location-based community service for free-time activities which was launched in autumn 2008. The interview turned out to be a gripping conversation about the stony ground of location-based service operators and the future prospects of mobile information systems.

By Florian Fischer

The Real Breakthrough for LBS is Now...Hopefully!

Location-based services (LBS) have been denoted the killer application for a few years now. And slowly but surely they have gathered momentum. According to the LBS Temperature Meter 2008 by Berg Insight there is considerable optimism among LBS professionals. A large proportion of them believes that the LBS market will grow by 25% or more in 2008. Admittedly, while there is life, there is hope. However, there is strong evidence that the future of LBS is quite a bit more than wishful thinking. The technological infrastructure is already established. More than 3.3 billion mobile phones are used worldwide. The



Gartner Group forecasts that GPS handsets will represent around 40% of sales in 2011, up from 13% in 2007. And the mobile internet is coming up with better bandwidths, enhanced area coverage and more attractive pricing models. Which is all to say that, after a lot of hype around the year 2000, location-based services are anticipated to finally make a breakthrough in the mass market. This trend is underscored by recent market developments exemplified in the activities of Nokia. The Finnish mobile vendor has rapidly been transformed into a mobile service company. The acquisition of Gate 5, a vendor of navigation and routing software, NAVTEQ and Plazes.com, a location-based social network-

ing platform, clearly indicates Nokia's vision of the mobile information society. According to Berg Insight, next to the notorious mapping and routing services, community services and entertainment and games are predicted to become relatively more successful in the future. Experts even believe that location-enhanced local search and information services will be the most successful services in three years' time.

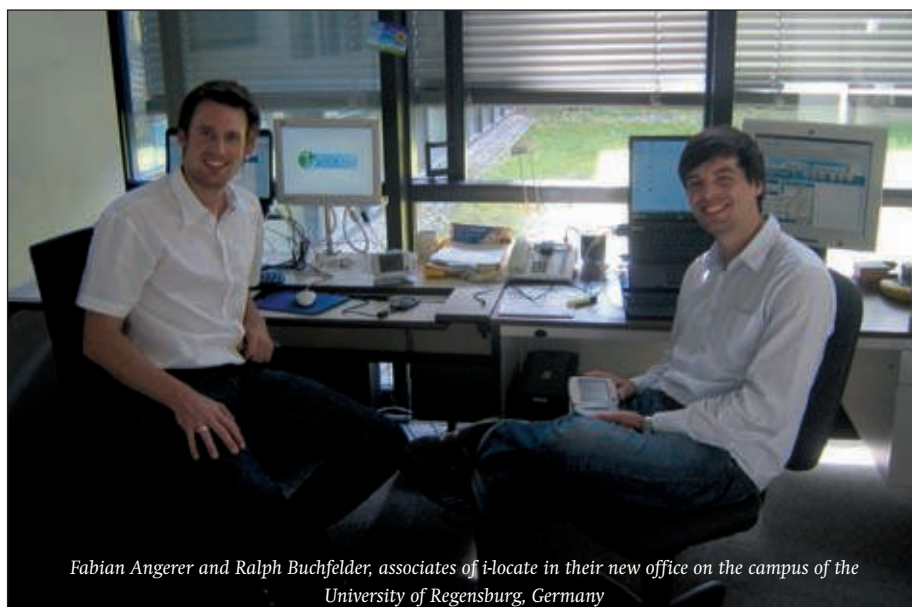
New Mediated Spaces are Emerging

Urban life reached the digital sphere long ago. Web-based city portals, event calendars, night-life guides, city-wikis, and community platforms stimulate people's need for information about their peers and their environment. They are used in everyday life by citizens, tourists and business canvassers to organize their urban activities. Thus these mediated spaces even influence the production and re-production of the urban social fabric and are an essential part of our postmodern society. Location-based services have just been on the fringes of urban information portals so far but it seems that they might occupy a very central place in the urban information ecology of the future. Geographic information will pervade the urban information space. Many different vendors have segmented the market for mobile and location services: vendors for mobile devices like Nokia and TomTom, mobile providers like Verizon and Vodafone, positioning specialists

like Garmin and Magellan, map specialists like TeleAtlas and NAVTEQ and countless service providers like i-locate. All of them specialize in different products, yet the differences between them are diminishing. Where are the differences, for instance, between a pedestrian navigation system and a restaurant finder that normally includes navigation features as well? Only in the marketing perspective of the respective vendors, as their system capabilities tend to converge more and more.

We Have Learned the Hard Way

In the first wave of location-based services, many prototypes were done in cooperation with municipal administrations, tourist agencies and mapping agencies. But many of these projects never reached an operative status. Ralph Buchfelder from i-locate says that Siemens had set up a project as early as 1999. "They still had technological challenges concerning positioning, mobile data transmission, and the small displays," he states and mentions that "their focus was solely on the software". Today the actual challenge is marketing and how to make your product operative and successful. RegMobil is the name of i-locate's first product, a mobile city and tourist information system for Regensburg in Germany that utilizes geographic information, even to OGC standards. The prototype was brought to market quite successfully by Regensburg's retail associations as the outcome of a student research project at the



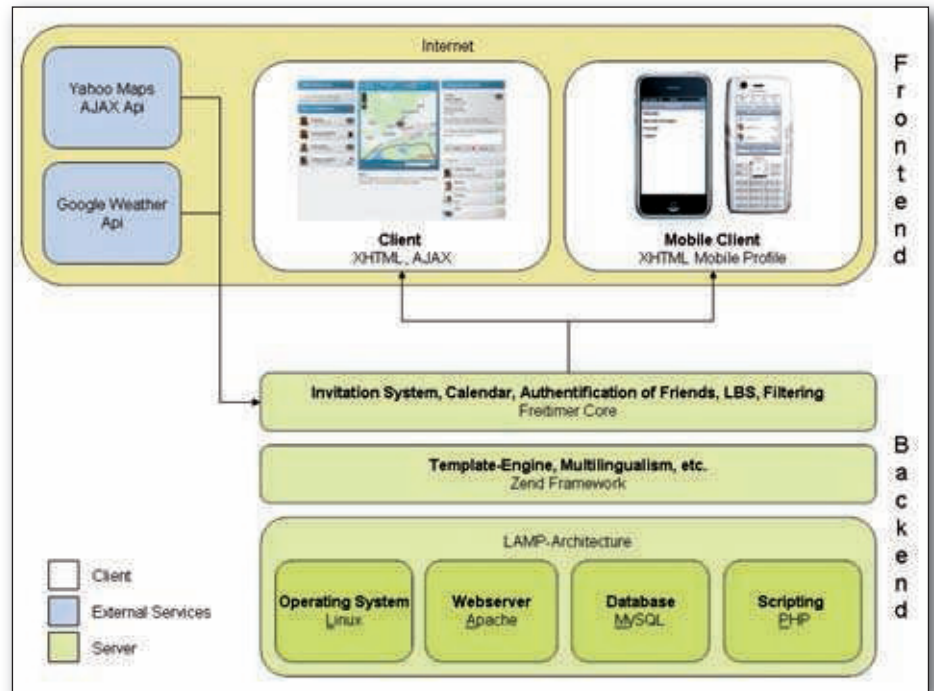
Fabian Angerer and Ralph Buchfelder, associates of i-locate in their new office on the campus of the University of Regensburg, Germany

University of Regensburg. However, the plan to operate the system in concert with Regensburg's city administration failed due to political hurdles and limited willingness to pay, even though the technical infrastructure already existed. Legal regulations for administrative bodies do not allow for sophisticated automated filtering and weighting because every business, which is to say every Point-of-Interest (POI), has an equal right to be presented.

"After this lesson we attempted to implement the system independently," comments Fabian Angerer. They implemented a Content Management System (CMS) to provide an account for every retailer in Regensburg. Now the small retailers were in charge of keeping their own data up-to-date. This time, lack of motivation and poor internet literacy on the part of the retailers involved overshadowed any success. "We have learned the hard way," concedes Ralph. "Meanwhile we only use RegMobil for educational purposes during our lectures at the university." Both Ralph and Fabian are studying geography at the University of Regensburg and are lecturers for GIS-related courses as well.

The Main Problem is Commercialization

"We were highly motivated to continue because we were among the first to develop such a location-based platform," Ralph explains as the reason why they did not quit after the failure of RegMobil. Today i-locate lists over 140 different mobile location-based service platforms on their website. Almost all of them were prototypes that disappeared except for a couple that were brought to market. Ralph Buchfelder points out: "The main problem is commercialization. Mobile services do not yet touch the mass market because there are too few users." He names the current pricing models for mobile internet and the lack of awareness of the costs of internet transactions. In comparison to the fixed price of a SMS, costs for mobile internet are still somewhat unmanageable for the user.



The system design of Freitimer

Moreover, the widely-used JavaME implementations are scruffy and APIs are missing. Ralph explains that an individual adjustment for every type of mobile phone is eventually necessary. "And that kind of handcrafting is very expensive," Fabian adds. Of course one can use software packages and commercial databases for automatic adjustment, but they are expensive and complicated and thus unprofitable for smaller projects. In the face of all these hurdles and setbacks in their first project, i-locate developed Freitimer. It is a location-based tool to plan and organize free-time activities with your friends. The concept of Freitimer orientates on current location-based social network platforms. It does not simply flow with the mainstream, though, and it possesses some refreshing innovations that make it unique and useful.

Plan Your Free Time and Just Arrange It

"Einfach mal was ausmachen" is the slogan of Freitimer (www.freitimer.de). "Just arrange

it" would be a good translation of the aim of this platform that is currently available in Germany, Austria and Switzerland. The platform consists of a LAMP architecture (see image above) with a Zend Framework and the Freitimer core on top. The core can integrate external services such as Google Weather. The user gets a web client and a mobile client both utilizing XHTML. Freitimer is based on two ideas. Users will have an easy-to-use tool to arrange spare-time activities with their friends, and all information that is needed will be processed specifically for each user. Freitimer is not a location-based social networking platform such as Plazes or Loopt. You can only contact real-world friends or, more precisely, you at least need to know their mobile phone numbers. "It is just about arranging activities," states Ralph Buchfelder. Thus the platform does not aim at location-based social networking and the much discussed total spatial visibility of ordinary online social networks. However, Freitimer connects people and places to ease the orga-

How does Freitimer Work?

If you want to plan an activity with your friends, just go to the Freitimer website (www.freitimer.de), create an account and log in. Then you can register an appointment, for example meeting for a beer on Saturday evening around 8 p.m. at Kelly's Irish Pub on the market square. This proposal will be sent to your friends by email and probably by SMS. It is mandatory to have your friends' mobile phone numbers in order to connect with them. Your friends can accept or decline your invitation. They can also log into Freitimer and get a map with additional information about the proposal. Invitations can be forwarded to others who are not in the original group.





Freitimer is available as web client and mobile client

nization of an activity but keeps private networks established outside of the platform. "Freitimer will be used precisely when you need to plan something. Not for more and not for less," comments Fabian Angerer. Ultimately it is a platform for organizing a real-world event rather than for spending time in cyberspace.

The Credo is "Purposeful Usage"

This is quite contrary to current mainstream business models, as most platforms try to generate additional traffic by extra features, games and whatever else keeps people online. The formula is simple: more features imply more clicks. These are translated into page impressions (PI), the ultimate indicator for selling advertisements. With 10,000 users and many page impressions, the commercialization of advertisements is a solid business foundation. However, more sophisticated indicators including the time spent on pages and greater expertise in the adoption and appropriation of mobile services might entail more effective commercialization. Page impressions are, in fact, poor indicators of the real use of

services, but at the moment they are an established, even entrenched indicator. This is the reason most investors encourage portal operators to provide unnecessary features in order to boost use of the virtual pastime and the number of clicks. If you refuse the diktat of page impressions and advertisements, the only solution is license fees or fees from broker services. Page impressions rule the market for online platforms. Only services that are free of charge can reach a broad public as consumer habits in the internet domain are still developing. Thus advertising is the common way to make money at the moment. "Everyone wants to earn money with advertising" is Fabian Angerer's diagnosis, "but you are hooked on traffic which can be very risky. Thus we thought about something that complements an ad-sponsored business model and also fits our philosophy of purposeful usage."

In future i-locate will cooperate with event agencies to extend their content for activities and implement a business model based on the brokerage of activities. Concurrently an SMS gateway might improve notification for

arrangements and serve as a very effective channel for mobile advertisements. The potential budgets for mobile advertisements are still not utilized. At the moment there is even a demand surplus by mobile advertisers. "With 100,000 users per month you can properly line your pockets," twinkles Fabian.

Clearness and Quality is a Commitment

Constant improvement will be on the agenda of i-locate till the end of 2009. Clearness and quality of information is an i-locate commitment. A user will have notification for more than ten POIs at the same time. Sophisticated collaborative filtering, weather-related filtering and broker-bid related filtering ensure this. But these activities will cost some money and "of course we strive towards raising capital," comments Ralph. Content that includes POI sets and additional attribute information will be added to Freitimer step by step. Cooperation with content providers is desired but it can be quite tricky. The level of detail of information and comprehensive coverage by area and theme in the recreational domain

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are fairly important. Standard data providers like Tele Atlas and NAVTEQ do not fulfil the former requirements. Alternative sources for content are city administrations, though wide-area coverage will turn out to be an exhausting adventure. Then again a retail chain like Starbucks could provide area coverage and level of detail but the thematic diversity is another challenge. One is ultimately bound to providers like mecomo.com, mapandroute.de and axiom.com which offer a high level of detail. Leisure and tourism specialists such as Varta and Merian unify editorial quality, depth of information and comprehensive coverage by theme and area, but integration of their data cannot be accomplished without close cooperation.

User-generated content might be a promising source of data as it is cheap and considered to provide a close match to the demand of other users. Fabian professes that "OpenStreetMap does not achieve our required level of detail but possibly our users could help contribute content to Freitimer. However, we could not abstain from an editorial review in order to assure quality." The reliability of Volunteered Geographic Information (VGI) is often cited as an issue that casts doubt on its benefits. Sometimes this is valid, but Freitimer's small-scale personal online networks could provide the right environment for trustworthy VGI.

A Real Innovative Service

Mobile services that integrate geographic information are important tools to navigate and organize the spatial and thematic diversity of leisure-time activities today. Leisure-time activities are a basic need in our leisure- and experience-oriented society. Many activities require a physical meet up with people who have dissimilar spatio-temporal schedules that have to be handled ex ante. Freitimer is a platform that relieves some of the difficulties regarding the handling of these schedules. In fact, using Freitimer is not intended to be the pastime itself but is meant to be used to boost the organization of your leisure time. You certainly need at least two people to use it. Such platforms are commonly used by groups of about four people, according to the findings of Plazes.com. It then offers significant advantages through its integrative spatial and personal view of every single activity and the embedded private social network feature. However, it is questionable how broad its use will be. There are other platforms such as Google's calendar and Doodle.ch that offer quite easy-to-use invitation tools and easy scheduling. Nevertheless, I consider them less comprehensive than Freitimer is now and will be in the future. I expect Freitimer to outdo rival platforms through its focus on usability, the strong connection to real-world activities and the integration of geographic information. Finally, it is a true innovation in location-based services and another good example of the convergence of LBS and community software. Hopefully many early adopters will convince their friends to use it and help LBS to gain momentum, thus confirming the present optimism among LBS professionals.

Florian Fischer ffischer@geoinformatics.com is Contributing Editor GIS for GeoInformatics.

Links:

- i-locate's Freitimer, a location-based tool to plan free-time activities with your friends: www.freitimer.de or www.freitimer.mobi
- Overview of LBS providers by i-locate: www.i-locate.de/index.php?page=anbieterubersicht
- Malm A. & J. Fagerberg (2008): LBS Temperature Meter 2008 by Berg Insight: www.lbsinsight.com/filearchive/1/1099/LBS%20Insight%20Survey%202008.pdf

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