

CALLING FOR INTEGRATED TRAFFIC INFORMATION – CASE 511

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ABSTRACT

One way to help users in their search for traffic information is to collect the existing traffic and travelling related information into one portal – for instance into the same Internet-page. In the US, the three digit number 511 has been selected as a common brand for traffic and travelling related information. There are similar plans for gathering together different pieces of traffic information in the EU countries. In addition to the challenges already faced in the US, there will be additional ones where many countries and languages are involved, as the case is in Europe.

BACKGROUND

It has been found in several studies before [1, 3, 4, 5] that drivers and travellers do not always get the information they need and want for their daily commuting or longer trips. Even if on-time traffic information is currently available for instance on the Internet, not everyone is able to find it when needed. Searching for the information that is not needed very often, such as routes and road-side services for longer trips can be specifically challenging. Currently, the information is spread into many sources or addresses, even on the Internet. Service providers are mainly providing information based on their own information gathering. Some are, in addition, giving links to other traffic and travelling related pages – although those are usually also addressed to service providers, not to specific information content. Users are not always aware of the provider of information they are searching for, and therefore it might be difficult for them to find the information needed, at least when the information is needed in haste.

Users, drivers and travellers, may need information not only of one mode but also of weather, other modes, delays, incidents, large scale events – just to mention some examples. In addition, users reported in a study by Penttinen et. al. [5] that they would also like to find other traffic related information through the same portal as real time traffic information. Some examples of this kind of information included information about new in-vehicle or roadside technology and its effects, traffic safety, new traffic rules and new traffic signs.

511 SERVICE IN SAN FRANCISCO BAY AREA

During the past decade, many states in the US have adopted 511 as a common brand for traffic and travelling information. At the moment, 23 states have the service available either through the phone or the Internet or both. Implementation of the service has been quite fast, and the first systems are already five years old and consequently quite mature. The goal of implementation is to cover 75% of the population by the end of the year 2007. Naturally, the weather and traffic conditions in different states differ quite remarkably. Concurrently, needs for the 511-service also vary. One example of a 511-system that covers different modes and is available both on the Internet and as a phone service, is the San Francisco Bay area 511-service [2]. The service includes information on traffic, transit (public transportation), bicycling and ridesharing (Figure 1.). The service is quite well known in the area and, based on the studies, also well accepted and considered to be important [6]. The service generates more than 100 000 phone calls and 390 000 web-sessions per week.

511
SF Bay Area

On the phone. **511** On the web. **511.org** On your way.

TRANSIT TRAFFIC RIDESHARE BICYCLING 511 INFO LINKS

BREAKING NEWS: [Hurricane Maze Closed in Oakland. Expanded Transit Service Continues. Click here for more information.](#)

Travel Tools and Info

FASTRAK
APPLY ONLINE

Add FasTrak to Your Shopping List!

Get your FasTrak toll tag at select Costco and Safeway locations today.

COSTCO WHOLESALE **SAFeway**

TRANS LINK Have you heard about TransLink? [Click to learn more!](#)

511 BikeMapper
[Click here to map your ride!](#)

SF Region Traffic Conditions

Santa Rosa, Petaluma, Fairfield, San Rafael, San Francisco, Walnut Creek, Livermore, Palo Alto, San Jose

Legend: No congestion (green), Heavy (red), No data (grey), Moderate (yellow), Stop and go (black)

511 Promotions and Features

80E to 580E Connector COLLAPSED
80W to 880S Connector CLOSED Pending Inspection

Take alternate routes.
Ride transit or carpool.
[Click here for more information.](#)

511 RIDESHARE REWARDS
Gas prices too high?
Carpool and earn up to \$100!

BIKE TO WORK DAY
Enter to WIN!
Thursday May 17, 2007

En Español | Disclaimer

511 Home | Transit | Traffic | Rideshare | Bicycling | 511 Info | Links

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Figure 1. Main page of San Francisco Bay Area 511-service on the Internet.

INTEGRATED TRAFFIC INFORMATION – ADVANTAGES AND CHALLENGES

Users' point of view

It is clear that from the users' point of view, gathering all the needed information into the same portal makes it easier to get and compare several pieces of information, for instance of different modes, routes, maps, as well as weather. Of course, there is also a challenge in this: the more information is gathered together, the more critical the user interface becomes. Especially, if the information is primarily designed to be provided on the Internet at home or in the

office, but is later also used by mobile devices with small displays when travelling or even driving. The same holds true with phone service. More information normally means a more complicated menu system – which may make using the service too time consuming, even frustrating. In addition, from the users' point of view, if the same information is provided in both ways – Internet and phone service – there should be consistency between those two. Moreover, the more users are aware of all kind of available Internet services, the tougher the competition between different services becomes. A new service needs to be not only informative but also easy, fast and even fun to use!

Opportunities and challenges for new business

Until now, traffic and transportation information has been mainly provided by public authorities, for example road authorities and transit service providers. In addition, users have been used to getting the currently existing information for free. However, users have indicated in earlier studies [1, 5] that they would like to get more personalized services and up-to-date alerts from their routes, and would like to be able to get the information both before and on the trip. Consequently, there is a question of the roles and responsibilities of the current service providers, especially public authorities: are they willing to develop their services further towards more personalized services. In addition, who is going to pay for that kind of development and also for the maintenance of the databases and services? Should the public funding mainly be addressed to developing the data gathering or also to developing the personalized services for individual users?

In many countries, there is a new trend of private companies coming into the traffic information branch. In their case, benefits of the services cannot only concern traffic policy such as improving traffic safety and reducing congestion. For them, making and maintaining a service must be commercially beneficial, too. Since users are not used to paying for traffic and transit information, business models including the users' willingness to pay for the new services are challenging and still developing. From the users' point of view, the new service that is not free should bring additional value compared to the old free-of-charge services. In addition, it is also a great challenge to reach enough users to achieve the financial goals, especially when the charge per usage is low. Traditionally, traffic and transit information have not been marketed very aggressively. Neither has it included commercial information, especially advertisements – at least not outside the quite strictly defined traffic branch. There has been, however, discussion of financing traffic and transit related information services in the future partly by commercials [7]. In addition, it is admitted that user awareness of the new services should be enhanced for instance by marketing. One good example of marketing traffic information services in US is the co-operation between 511-services and tourism.

European “511”-service

In contrast to the US, there are many different countries and language zones in Europe. Therefore, planning a European wide traffic and transit information is even more challenging. A good question therefore is: “Is there really a need for a common European 511-service?” Normally, drivers' and travellers' daily commuting happens in quite a familiar environment. Therefore, they do not need, and most probably do not want to have a European wide service with all the multiple menus to go through. However, there are such users who cross the borders, some even on a daily basis. This group of “lead-users” consists of e.g. long-haul truck drivers, other commercial vehicle drivers and also their operators. In addition, there is a lot of both business and leisure travelling between the EU-countries. In these cases, a common “ad-

dress” or brand for traffic and transit information would make it easier to find the up-to-date information for their trips.

In addition, a common traffic information service – even if kept separately in every country but having a logical address and common phone number as in the US, would enhance, for instance, the drivers’ awareness of different traffic laws and signs in the member states. In addition, this kind of traffic information portals would also give the opportunity to enhance users’ awareness of new technology in traffic as well as of other topical issues. Naturally, there are many challenges to be taken into account. In addition to the above mentioned language variety, there is also variety in traffic and weather conditions in the member states. For instance, drivers in Spain and in Sweden most probably have different opinions on the severity of a slight snowing in the winter time. Moreover, congestion and long delays as experienced by Finnish drivers in Helsinki are most probably considered a totally normal everyday situation by drivers in Brussels. .

CONCLUSION

It has been found in several studies before, that drivers and travellers do not always get the information they need for their daily commuting or longer trips. Especially multi-modal comparison is often quite challenging. Since traffic and transportation information is seen as one tool to enhance for instance the use of public transportation, there should be an accessible and convenient way for users to find all the needed information. Therefore, there is still demand to develop the traffic and traveller information services further.

In the US, 511 has been selected as a three digit number and a common brand for traffic and transportation services. The service should be accessible by three fourths of the citizens by the end of this year. A good example of a mature and widely used and accepted 511-service is in the San Francisco Bay area. The service provides users with the information of all the modes and makes the multi-modal comparison possible and convenient. A good question concerning Europe is if there is a need for a common European “511”-service. As many different countries, environmental and traffic conditions and languages are involved, this may sound quite challenging. However, people travel quite a lot between the member states, either for business or for leisure. Even if there would not be a common “511-Europe”-portal, just having intuitive and logical addresses for traffic and travelling related information in all the countries would be beneficial to the users. Having a common brand selected and used for traffic and traveller information would also make it possible to enhance the users’ awareness of, for instance, differences in traffic rules in different countries, and even to give them topical information on new technology and its expected effects on traffic.

It is quite clear that creating and maintaining a European or even a national traffic and transportation portal cannot happen without wide co-operation between public authorities and private companies. Moreover, as the competition on the Internet is already quite hard, a new service must offer the end-users something more than the old already existing services, especially if the users are expected to pay for using the service or parts of the service. This kind of new development could, however, benefit the users by enhancing their possibilities to find valuable information concerning their driving and travelling, and could also offer new possibilities to new businesses in the area of traffic and transportation information.

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