

Promotion of the Use of Public Transport with Social Media on a Mobile Application

Hiroyoshi SHIBATA Masaki ITO Takao KAWAMURA Kazunori SUGAHARA

Graduate School of Engineering, Tottori University
4-101 Koyama-Minami, Tottori 680-8552, Japan
{s082021, masaki, kawamura, sugahara}@ike.tottori-u.ac.jp

ABSTRACT

This paper demonstrates a mobile application that helps using public transport. Since it is important to promote the use of public transport both to support the mobility in the rural area and to improve the environment in a big city, we integrated social media to the application, and enable the promotion. Users of the application can invite to travel with public transport each other easily by exchanging messages on social media.

Author Keywords

public transport, mobile application, information sharing, social media

ACM Classification Keywords

H.5.2. Theory and methods: User Interfaces

General Terms

Design, Theory

INTRODUCTION

To improve the usability of public transport such as buses, trains and airlines, numerous applications and systems have been proposed[3]. Those systems provide a map, a timetable, an itinerary and various information suitable to the user. Some of the systems are provided for practice use such as “Navitime”[1], “Google transit”[4], and improving convenience of public transport.

The target of these systems is, however, the user who already decided to use public transport for his/her movement. There is little way to promote the use of public transport and create new public transport users inside the system.

Increasing the user of public transport is important. In recent years, the users of public transport are gradually decreasing in the rural area in Japan due to depopulation and the increase of the number of people who own their private cars. In order to support elderly people and young students who do not have private cars, maintaining route buses is still important. In the urban area, it is important to switch to public transport for

drivers in order to reduce traffic jam and air pollution. Thus, we need to diligently work on promoting the use of public transport and increase the number of the user.

In this research, we develop a smartphone application that promotes the use of public transport. As the user of smartphone increases, a user starts to expect various types of navigations for his/her movement. We developed a navigation application for public transport, and integrated the function of promotion on it with social media. We discuss the requirements to the application and develop the application in the following sections.

USING SOCIAL MEDIA FOR THE PROMOTION OF THE USE OF PUBLIC TRANSPORT

With increased number of users of social media such as Twitter and Facebook, the role of social media has become important for communication, sharing information and advertisement. People using social media always exchange their activities and opinions about webpage they visited, goods they bought, books they read, foods they had etc. The users of social media tend to trust information from friends and acquaintances rather than advertisements for the general public. Therefore companies are trying to show their company personality and communicate directory with customers on social media in order to advertise their products. Also they are trying to promote exchanging opinions about their products within the users of social media.

Instead of launching social media campaign as many company are doing, we developed a smartphone application that helps our daily usage of public transport, and integrated a feature of social media into it. Since public transport is used in our daily life, the promotion should also be continuous.

To achieve the goal, we need to develop an application that has the following features.

1. The application is designed to help our daily usage of public transport.
2. The usage of social media is integrated into the natural usage of the application.
3. The users who are not intended to use public transport can reach to the information easily how he/she can utilize the public transport.

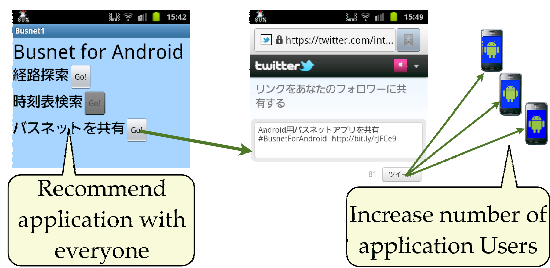


Figure 1. Busnet for Android

A PUBLIC TRANSPORT NAVIGATION SYSTEM WITH SOCIAL MEDIA FEATURES

We developed a smartphone application to help the use of public transport called "Busnet for Android". We selected Twitter as social media for this application, and integrated the features of tweet into it.

Busnet for Android

As a smartphone application that helps our daily use of public transport, we developed "Busnet for Android". Busnet[2] is a web-based transition guidance for route buses and trains that we developed available in Tottori Prefecture, Japan. A user of Busnet inputs names of bus stops or train stations of his/her departure and destination place, then he/she receives the itinerary including names of routes to take, names of bus stops for transition, and departure and arrival times at each bus stop or train station. We have been operating Busnet since 2006. In order to increase the usability of "Busnet", we developed a native application of the Busnet for Android. Figure 1 illustrates the screenshots of the application.

Promotion of Busnet for Android

The first step of promotion should be designed for the application itself. In order to increase the uses of the Busnet application, we made a button that promotes installation of it. A user can easily recommend the application to his/her friends on Twitter only by pushing the button (see Figure 2). We expect a chain of recommendation on Twitter with reply and retweet.

Help to invite friends to public transport on social media

For the users who already installed the Busnet application, we prepared another method of promotion. On the screen of the itinerary, we made a button to share the route to the destination with his/her friends using Twitter. If a user and his/her friends want to go to the same place with the same itinerary, he/she can easily announce the URL for the itinerary on Twitter. A friend can acquire the itinerary on the application by clicking the URL. Even in case he/she has not installed the application, he/she can see the itinerary on the web. If a friend of the user lives in a different place, he/she can share the URL only with the destination and the arrival time. After clicking the URL, the application prompts to input the start point to provide appropriate itinerary to the user. With these features, the application promotes the use of public transport.



Figure 2. Sharing of application

Evaluation of the Social Media Features

In order to evaluate the role of the social media in promotion of public transport, we developed a mechanism to track users' behavior on the social media. With the mechanism, we can grasp the chain of recommendation. We can count the number of downloads caused by the certain recommendation, and visualize the network of the recommendation. We will release the application in this summer.

CONCLUSION

We developed Busnet for Android, a smartphone application of our Busnet system, that provides itinerary of route buses and trains, to further help our daily use of public transport. To promote the application and the use of public transport, we integrated Twitter into the application. By using the application, a user can easily invite his/her friend to travel with public transport. We are now preparing for the field experiment of the application to conduct in this summer.

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