

Tour de Blog

A mobile and mapping blog system

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Abstract

We have described a blog system called Tour de Blog that allows geographical tracking of individual blogs. Our system considers a group of blogs that a user defines as belonging to the same category in chronological order and tracks them as one "Tour". The system offers an easy way to post blogs with location information from a mobile device and displays the transitions in the times and places of posts of a "Tour" in an intuitive manner. The data is also output in RSS, GPX, and KML so that the data collected at the system can also be used interactively with other services that use positional information.

Keywords

Blog, Mobile, Moblog, GIS

1. Introduction

Today, blogging via mobile phones with cameras is particularly popular where mobile devices as well as the infrastructure allow for instant capture and sharing of thoughts and photos online. A new development, which is the emphasis of this paper, is the focus of transition of where and what is being said and photographed rather than simply the act of sharing a thought and/or picture. Generally, an event is associated with people, time, and location. As our first step towards the goal, we have developed a system called Tour de Blog[1], which enables geographical tracking of individual blogs. Our system considers a group of blogs that a user defines as belonging to the same category in chronological order and tracks them as one "Tour". For example, a "Tour" can be one's travel diaries about a weekend trip to the countryside or an eating binge at different Italian restaurants in a city. Tour de Blog offers an easy way to post blogs with location information from a mobile device and displays the transitions in the times and places of posts of a "Tour" in an intuitive manner. We propose the following three features to achieve these above-mentioned concepts.

- (1) Easy acquisition of location information about users anytime and anywhere.
- (2) Intuitive interface that displays transitions in time and place of users as well as interrelation of locations on a map in chronological order.

- (3) Output in other forms of data such as RSS, KML, and GPX.

1.1 Acquisition of location information

A flow to obtain location information in Tour de Blog by using a mobile phone is depicted in Fig. 1. (1) the user accesses the Tour de Blog server through a CGI; (2) the server distinguishes the type of mobile phone used to access the server and confirms the possibility of obtaining location information about the user; (3) if the user agrees to obtain his location information, his location is obtained through GPS or electronic wave strength using the built-in mobile phone function; (4) the server receives the user's location information; (5) the user takes a picture with his mobile phone and sends it with blog content such as title, category, tour name, and description of the diary.

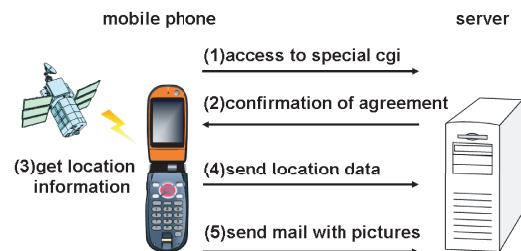


Fig. 1: Chart of location acquisition using mobile phone

1.2 Display Interface

The key feature of Tour de Blog is the concept of a tour where blogs are associated with the location and time to which each blog is connected. The MapMode interface enhances the tour concept by displaying the connections between posted blogs. A view of the MapMode interface is shown in Fig.2. Google Maps[2] is used for this interface. Each posted blog is displayed as an icon on this map and connected with lines. The icons are separated according to the category of the blog article. The line connects nearby articles in a timeline. The articles displayed on the map at one time are limited to the one in the selected "Tour". The user can enjoy various routes by selecting "Tour" with "TourList" at the left of the map. There is an interface of the "TourPlayer" at the left of the map mode. TourPlayer displays each blog in a slideshow by clicking forward and back. For instance, when the "Forward" button on "TourPlayer" is clicked, coordinates on the map move to the next position along the line. The article and

the photograph are displayed at the movement point when finished moving. The article and the photograph pop up and are displayed at the point when stopped moving. The user can move on the map by pushing the forward button just like the route along which the blogger moves. In the pop up window, the link to a detailed article, the "Tour" name, and the contribution time, for example, are compactly displayed. When the photograph is clicked, it is expanded in a browser and details can be seen. Moreover, a slide show can be displayed when there are two or more photographs. In addition, TourPlayer can play automatically by pushing the "Play" button. The user can read a lot of information because he or she can relive the movement of the blogger's position on the map. The tour player displays each blog in a slideshow by clicking forward and back. The WeblogMode bottom allows users to play the tour backwards one by one. There is also a WeblogMode interface, a traditional interface suitable for browsing several texts at once, as shown in Fig.3.

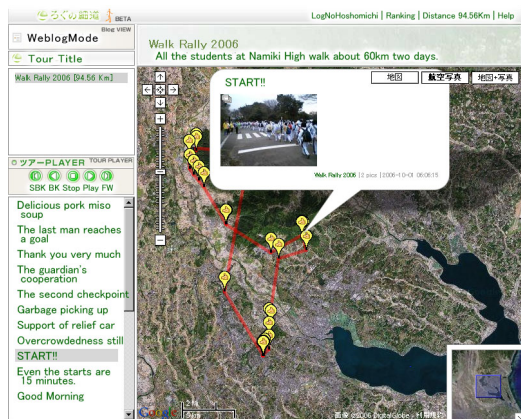


Fig. 2: MapMode Interface. The course of the Walk Rally of Namiki High School is shown on this map. Each icon indicates a place where an article was posted by mobile phone. A red line is drawn from one place to the next in chronological order following the course of the rally.

1.3 Data Format

There are many services that use positional information and a map such as that of a GPS, car navigation system, and atlas application. When creating a community, being able to build interactions with these other services that also use positional information is more interesting. In Tour de Blog, the data structure of "Tour" has all the necessary information so that it becomes compatible with these services and other information such as photographs, descriptions, and comments. The most general format to describe metadata with RDF is Geo vocabulary, which is defined by the RDF Interest Group of W3C[3]. RSS that contains location information is delivered by using geo vocabulary in Tour de Blog. Various services will be able to treat the location information in Tour de Blog by this RSS format. Another popular format that uses location information is KML in XML data. Although KML is mostly used to display data in Google Earth[4] We have made a function that allows Google Earth to play Tour de Blog data. Tour de Blog is also compatible with GPX[5] (XML format of GPS output) and POIX[6] (The XML format being used for the car navigation systems as well).



Fig. 3: BlogMode Interface. This mode is more suitable than MapMode for reading several articles at once. Each article is linked to that of point in the MapMode interface.

Conclusion and Future Work

We have presented a new blog system, Tour de Blog, where mobile phones can be used to post blogs with location information. The system is available to the public as a Beta version to this date and interesting "Tours" have been gathered, as we have shown in this paper. In the future, we would like to share blog data gathered on the system with researchers and hope to contribute to the society of blogs and other related research. When a large number of articles are posted from users, we would like to extract interesting information using techniques from the data-mining field, for example. The system is only available within Japan but we would also like to make the service available to the world. The problem of line simplification still remains an issue when there are too many posts in one "Tour" to be displayed on a map. We need an intellectual mechanism to display the information as well.

References

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