

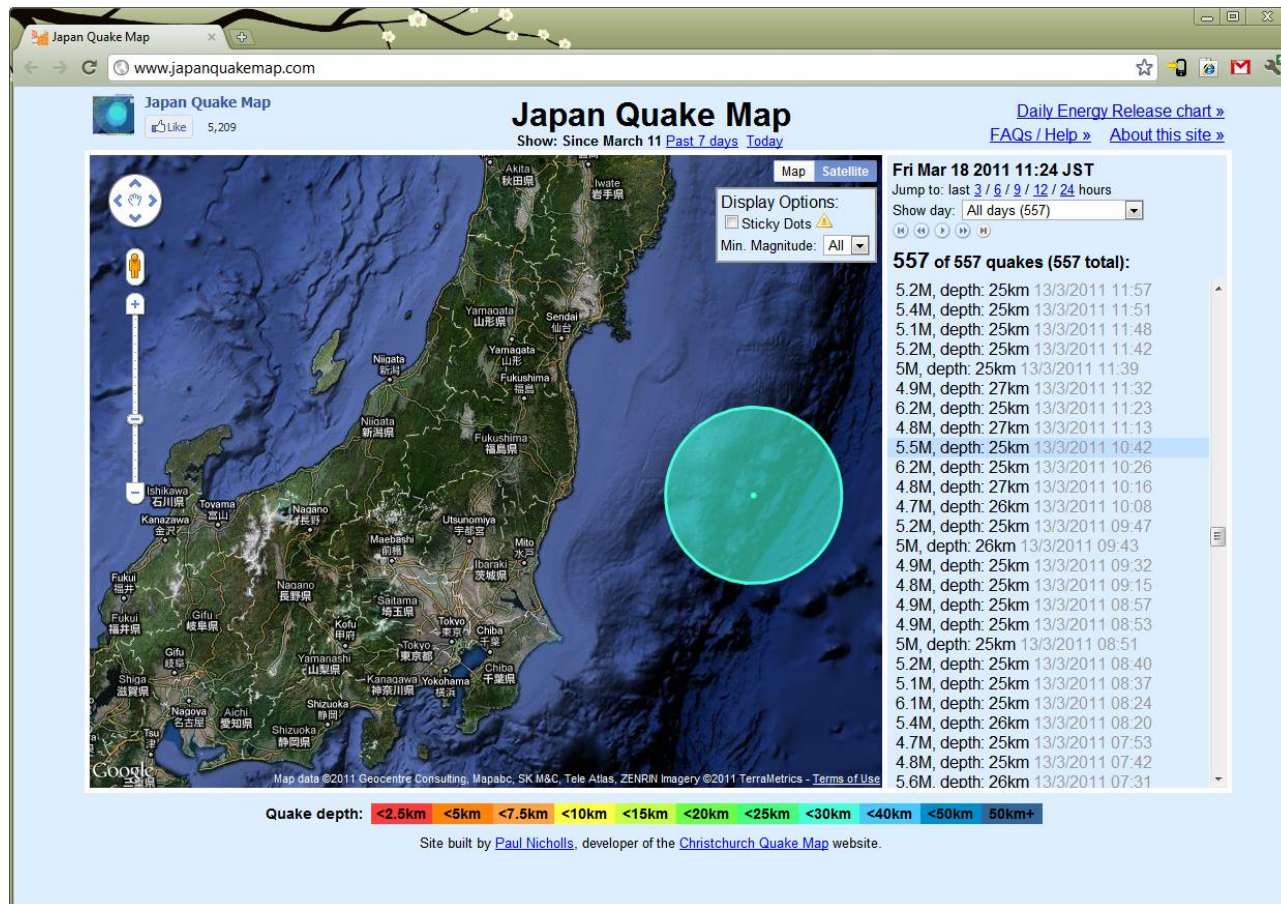
Presenting dynamic information by using web mapping service

Special Interest Group on Innovative Software

<http://www.comp.hkbu.edu.hk/~sigis/>

Visualize Japan Earth Quake

- <http://www.japanquakemap.com/>



Visualize HK Weather Information

- http://weather.ap.polyu.edu.hk/index_c.php



Visualize Bus Information

- <http://transport.wspgroup.fi/hklkartta/defaultEn.aspx>

The screenshot displays the Helsinki City Transport - Vehicles website. The browser address bar shows the URL: transport.wspgroup.fi/hklkartta/defaultEn.aspx. The page title is "Helsinki City Transport - Vehicles". The main content area features a map of Helsinki with bus routes highlighted in yellow and red. The map includes labels for various districts and landmarks. On the right side, there is a search interface with the following elements:

- Find Stop**: A section with a "Stop name" input field and a "Find" button.
- Find line**: A section with a "Find Address" input field and a "Find" button.
- Additional choices**: A section with a "Clear choices" button.
- Operator:** A text input field.
- Vehicle Number:** A text input field.

The bottom of the page includes a "Powered by Mattersoft" logo and a copyright notice: "Map data ©2011 Geocentre Consulting, Tele Atlas - HERE".

Could we do the same for HK Buses?

- KMB:

- Present their bus stop using Google Maps

- City Bus

- Providing free WIFI service in some “Cityflyer” and “Cross Harbour Tunnel” routes

- Could you imagine how to integrate these two technologies?

The screenshot shows the KMB website interface. At the top, there's a navigation bar with '關於九巴', '新聞中心', '企業公民', '路線與服務', '九巴天地', '新聞熱點', and '商務機會'. Below that, there's a search bar and a '路線搜尋' section. The search results for route 106 are shown, including a table of stops and a map of the route.

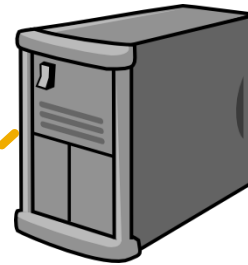
編號	詳細路線 / 收費	時價表	其他
1	黃大仙 WONG TAI SIN BUS TERMINUS	非空調 單向	空調 單向 \$9.8
2	彩虹遊樂場 CHOI HUNG ROAD PLAYGROUND	非空調	單向 \$9.8
3	新禧廣場 NING YEN STREET, SAN PO KONG	非空調	單向 \$9.8
4	富豪東方酒店 REGAL ORIENTAL HOTEL	非空調	單向 \$9.8
5	宋皇臺道 SUNG WONG TAI	非空調	單向 \$9.3

At the bottom right, there's a logo for 'webus Free Range Commuting'.

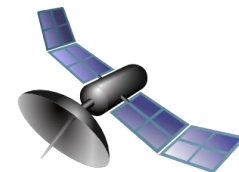
Could we do the same for HK Buses?

- Example:

Displaying bus location



Submitting bus location



GPS



Mobile Network



Visualize traffic data

- Traditional way:
 - Listen to radio broadcast
 - Watch TV news
 - Check the transport department website

The screenshot shows the 881903.com website. The main content area is titled "即時交通消息" (Real-time Traffic News). It features a list of traffic incidents, including:

- 交通意外：皇珠路去屯門泳池(12:06跟進)** (Traffic accident: Huangzhu Road to Tungmen Swimming Pool (12:06 follow-up))
- 交通意外：皇珠路去屯門泳池(11:05跟進)** (Traffic accident: Huangzhu Road to Tungmen Swimming Pool (11:05 follow-up))
- 交通意外：啟德跑道去觀鵬(11:00清理)** (Traffic accident: Kai Tak Runway to Kwan Peng (11:00 cleanup))
- 交通意外：啟德跑道去觀鵬(10:40最新)** (Traffic accident: Kai Tak Runway to Kwan Peng (10:40 latest))
- 交通意外：皇珠路去屯門泳池(10:38跟進)** (Traffic accident: Huangzhu Road to Tungmen Swimming Pool (10:38 follow-up))

The website also includes a navigation menu, a search bar, and various social media links.

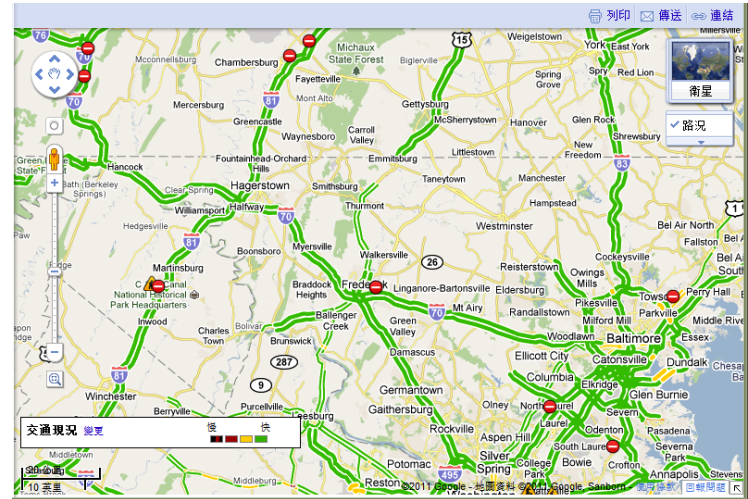
The screenshot shows the traffic.td.gov.hk website. The main content area is titled "全港主要道路交通情況" (Traffic Situation of Major Roads in Hong Kong). It features a map of Hong Kong with various roads and tunnels highlighted in different colors. The map includes labels for major roads and tunnels such as:

- 大欖隧道 (Lantau Tunnel)
- 荃灣 (Tsing Wan)
- 城門隧道 (Shing Mun Tunnel)
- 汀九橋 (Ting Kau Bridge)
- 青衣 (Tsing Yi)
- 青馬大橋 (Tsing Ma Bridge)
- 長青隧道 (Cheung Cheong Tunnel)
- 獅子山隧道 (Lion Rock Tunnel)

Below the map, there is a live camera feed showing a road scene. The camera feed is titled "荃灣葵涌道近葵興港鐵站" (Tsing Wan Kwai Chung Rd near Kwai Hing MTR Station). The camera feed shows a multi-lane road with several vehicles. The camera feed is updated every two minutes.

Visualize traffic data

- Google Maps does not offer any traffic data in Hong Kong.



- Apart from getting data from transport department, how can we get it by ourselves?

Visualize traffic data

- Make use of location of a mobile device again!
- Create a system to gather location and speed from mobile devices for a particular location.
- Movement speed of mobile devices on a highway can indicate the traffic condition.
 - High speed = Good traffic condition
 - Low speed = Bad traffic condition

Visualize traffic data



Visualize traffic data

- Feasibility:
 - The feasibility is subject to the number of participants in the system.
 - Effectiveness will be affected by the availability of GPS signal.
- For a small road, we also need to take the “car stopping time” into account as there will be more traffic light throughout the journey.

Visualize number of people

- By using the same principle as the traffic data, we can also visualize the number of people using web mapping service.
- How to improve the accuracy if our target is marches, rallies, or sit-ins?
 - Tips: Look for the statistics and the event background information

Interesting IT News

- Story of hiring hatchet man for promoting sales and services in different social networking website.
- Ref.: <http://unwire.hk/2011/03/19/internet-gunner/headline/>

Interesting IT News

- Is it possible to use our computers to detect earthquake?
- Ref.
 - <http://qcn.stanford.edu/>
 - <http://www.computer.org/portal/web/news/home/-/blogs/3147559;jsessionid=b19be21ace5e28acf7565501918c>