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Software for Exploratory Data Analysis and Statistical Modelling

Statistical Modelling with R

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Google Maps and ggmap

December 22nd, 2013

The **ggmap** package can be used to access maps from the Google Maps API and there are a number of examples on various statistics related blogs. These include here, here and here.

Fast Tube by Casper

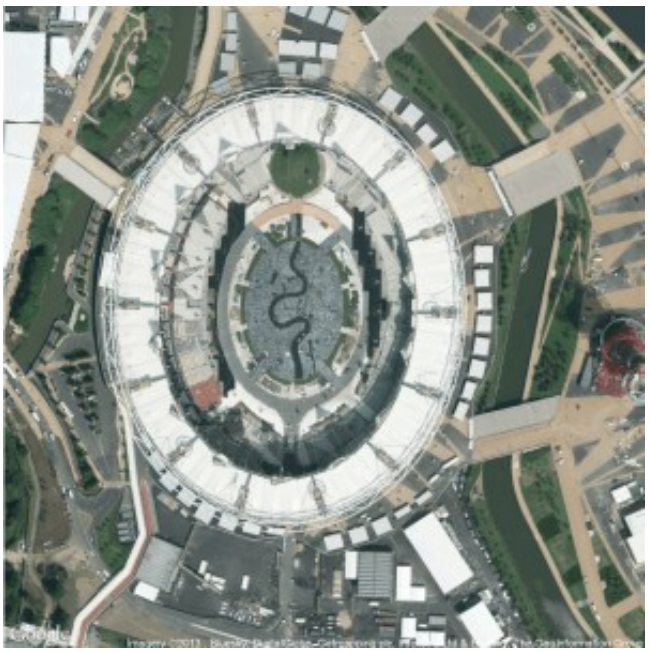
The **ggmap** package has a function *get_map* that can download maps from various sources including Google Maps.

```
require(ggmap)
```

The first example specifies the longitude and latitude close to the London 2012 Olympic park from Google and selects the *satellite* map type. The *extent="device"* argument stretches the map to fill the whole graphics device.

```
mapImageData1 <- get_map(location = c(lon = -0.016179, lat = 51.538525),
    color = "color",
    source = "google",
    maptype = "satellite",
    zoom = 17)

ggmap(mapImageData1,
    extent = "device",
    ylab = "Latitude",
    xlab = "Longitude")
```

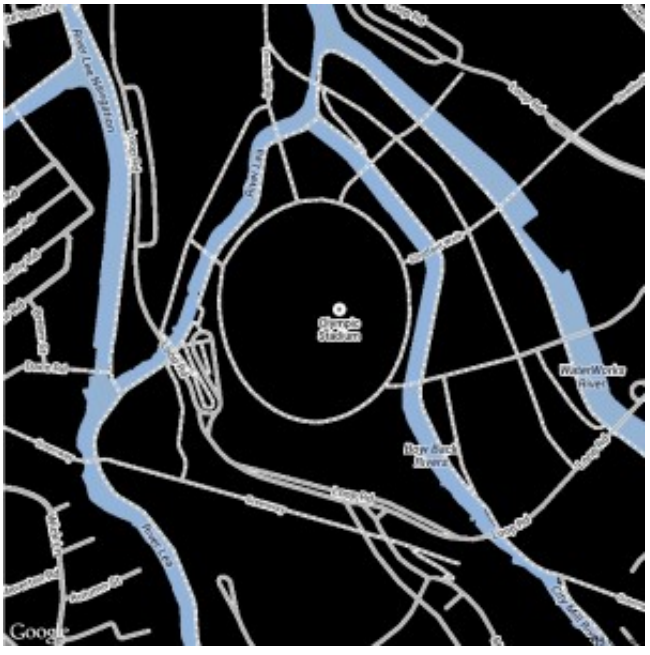


London 2012 Olympic Stadium Google Map Example 1

The second example is based on the terrain map type which looks slightly odd.

```
mapImageData2 <- get_map(location = c(lon = -0.016179, lat = 51.538525),
    color = "color",
    source = "google",
    maptype = "terrain",
    zoom = 16)

ggmap(mapImageData2,
    extent = "device",
    ylab = "Latitude",
    xlab = "Longitude")
```

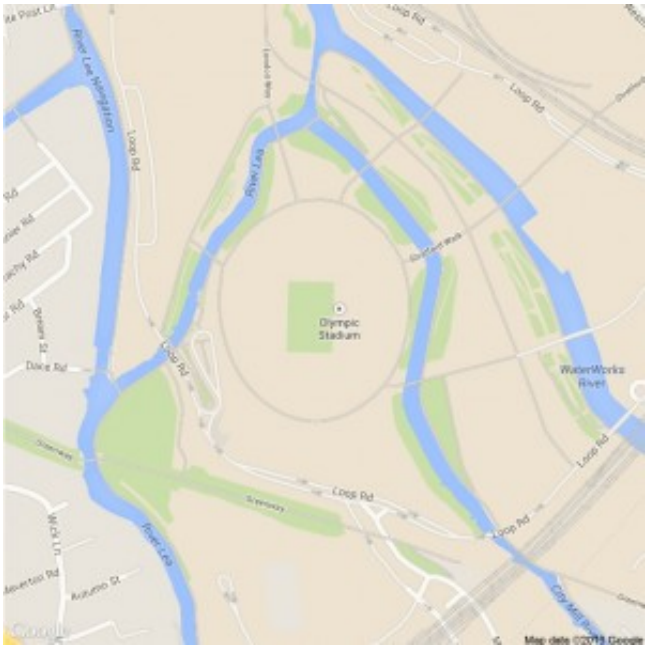


London 2012 Olympic Stadium Google Map Example 2

The third example is roadmap and is uncluttered and provides an overview of the surroundings.

```
mapImageData3 <- get_map(location = c(lon = -0.016179, lat = 51.538525),
    color = "color",
    source = "google",
    maptype = "roadmap",
    zoom = 16)

ggmap(mapImageData3,
    extent = "device",
    ylab = "Latitude",
    xlab = "Longitude")
```



London 2012 Olympic Stadium Google Map
Example 3

The final example is a combination of the satellite image and some road and location names.

```
mapImageData4 <- get_map(location = c(lon = -0.016179, lat = 51.538525),
    color = "color",
    source = "google",
    maptype = "hybrid",
    zoom = 15)

ggmap(mapImageData4,
    extent = "device",
    ylab = "Latitude",
    xlab = "Longitude")
```

London 2012 Olympic Stadium Google Map Example 4

Posted by Ralph at 12:59 pm Comments Off

Comments are closed.

Statistics Books

ggplot2: Elegant Graphics for Data Analysis (Use R) **Hadley Wickham**

Read Review Buy Book

Modern Applied Statistics with S (Statistics and Computing) **W.N. Venables, B.D. Ripley**

Read Review Buy Book

Software for Data Analysis: Programming with R (Statistics and Computing) **John Chambers**

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Elements of Graphing Data, The **W.S. Cleveland**

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The Visual Display of Quantitative Information **Edward R. Tufte**

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