Choosing a Mapping Service

After considering Google Maps and OpenStreetMap, I have decided the latter suits our needs for location-based data visualization better. Below, I have denoted relevant attributes of each service as pros (green), neutrals (yellow), or cons (red).

# Comparison

|  |  |
| --- | --- |
| Google Maps | OpenStreetMap |
| * widely known and used * supports crowdsourcing for 200+ countries[[1]](#footnote-0) * updated by Google (exclusively in some countries, like the U.S.) and by licensed servicers like Tele Atlas (TomTom) * may only be accessed via the Google Maps API * free for less than 25,000 accesses per day * supports routing and turn-by-turn navigation natively * supports indoor mapping * may contain copyright Easter eggs[[2]](#footnote-1) * available via HTTPS | * widely known and used * relies on a crowdsourcing platform and government-provided data such as TIGER[[3]](#footnote-2) * updated by contributors (1mil+), and anyone may become a contributor at anytime * has many methods for access[[4]](#footnote-3) * free for unlimited usage * requires third-party software for routing * supports indoor mapping * does not contain copyright Easter eggs * available via HTTPS |

# Leaflet

The framework that seems to be the most popular for accessing OpenStreetMap (OSM) is called Leaflet. It is reputed to be “much less complicated than [OpenLayers](http://wiki.openstreetmap.org/wiki/OpenLayers) [, an alternate JavaScript framework,] and instead focuses on performance, usability, simple API, small size and mobile support.”[[5]](#footnote-4) On that note, it incorporates OSM as a layer that may be substituted for any of a plethora[[6]](#footnote-5) of other mapping services rather easily—including Google Maps (although this is not optimal since it requires a separate plugin and essentially means using an API to access the Google Maps API).[[7]](#footnote-6) Furthermore, Leaflet uses HTML5 and CSS3 and is open-source (BSD license).

1. https://support.google.com/mapmaker/answer/155415?hl=en [↑](#footnote-ref-0)
2. http://wiki.openstreetmap.org/wiki/Copyright\_Easter\_Eggs [↑](#footnote-ref-1)
3. http://wiki.openstreetmap.org/wiki/TIGER#History [↑](#footnote-ref-2)
4. http://wiki.openstreetmap.org/wiki/Develop/Frameworks#Webmaps [↑](#footnote-ref-3)
5. http://wiki.openstreetmap.org/wiki/Leaflet [↑](#footnote-ref-4)
6. http://leaflet-extras.github.io/leaflet-providers/preview/ [↑](#footnote-ref-5)
7. https://github.com/Leaflet/Leaflet/blob/master/FAQ.md#data-providers [↑](#footnote-ref-6)