

GREEN MAPPING WORKSHOP

March 12, 2016 | torontogreenmap.github.io

HIYA!

My name is Dawn Walker

I am a Information System Design grad student in the Faculty of Information, University of Toronto.

This workshop is part of a design research project exploring how to *design online community maps* to support discovery of urban agriculture and sustainability initiatives.

WORKSHOP PLAN

In 3 hours we will:

- learn about online mapping projects
- look at, and test, existing mapping tools
- prototype maps and put them online!

WHAT IS A ‘GREEN MAP’?

According to Green Map Systems, green maps are:

“locally created environmentally-themed maps...plot[ting] the locations of a community's natural, cultural and sustainable resources”

TransforMap sees green maps as highlighting:

“the initiatives, communities, projects... dedicated to... serving the common good and/ or contributing to a sustainable way of life”

SOME (ONLINE) EXAMPLES!



Open Green Map

[World View](#) [Suggest a Site](#)

Map Satellite

[Legend](#) [Info](#) [Search](#)

Green Map Icons

Sustainable Living



Technology and Design



Mobility



NYC Street Trees by Species

New York City's urban forest provides numerous environmental and social benefits, and street trees compose roughly one quarter of that canopy. This map shows the distribution and biodiversity of the city's street trees based on the last tree census.

[Read more.](#)

NYC STREET TREES





Gardens

Explore the gardens in your backyard...

Filter by All

Map

Satellite

TORONTO COMMUNITY GARDEN NETWORK (TCGN) GARDENS



Show 10 entries

Search

Title

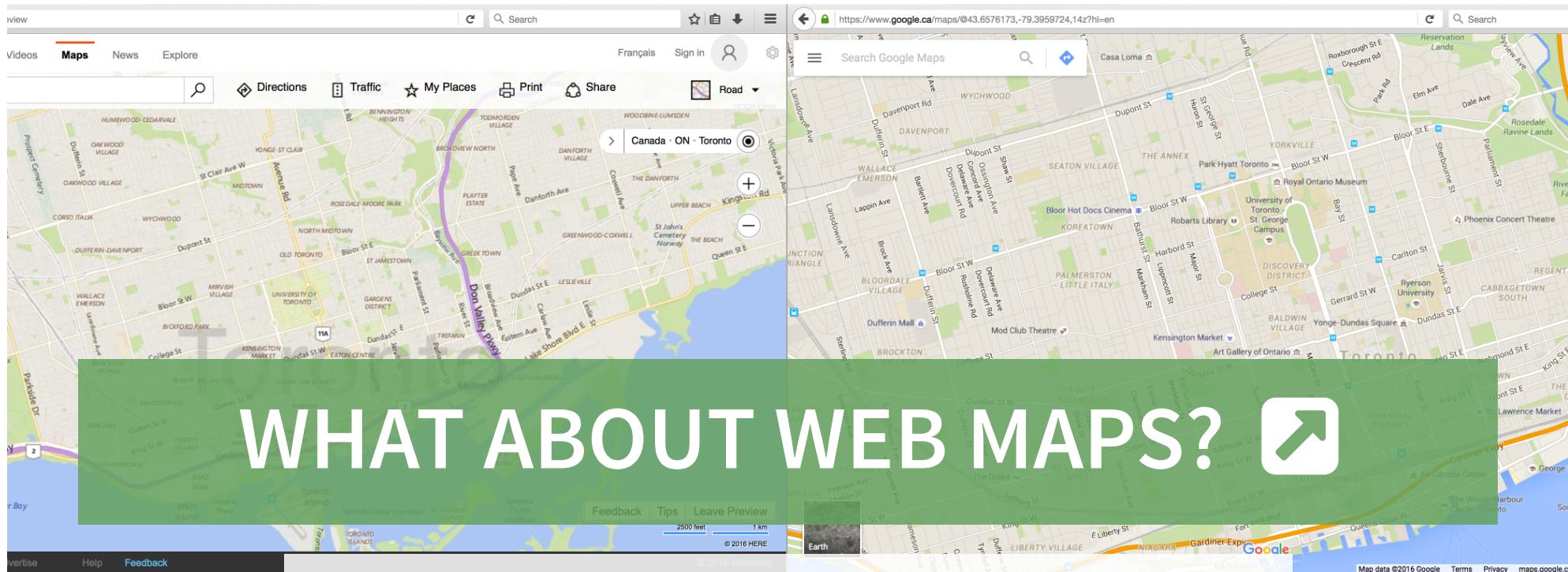
Category

Address

 220 Oak St

Community Garden

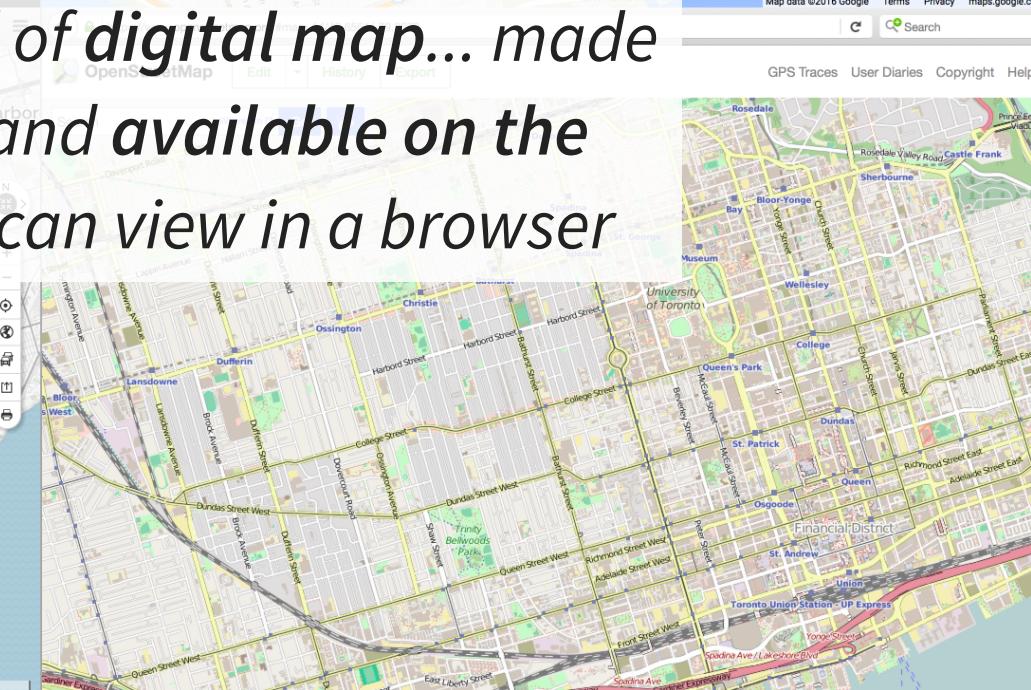
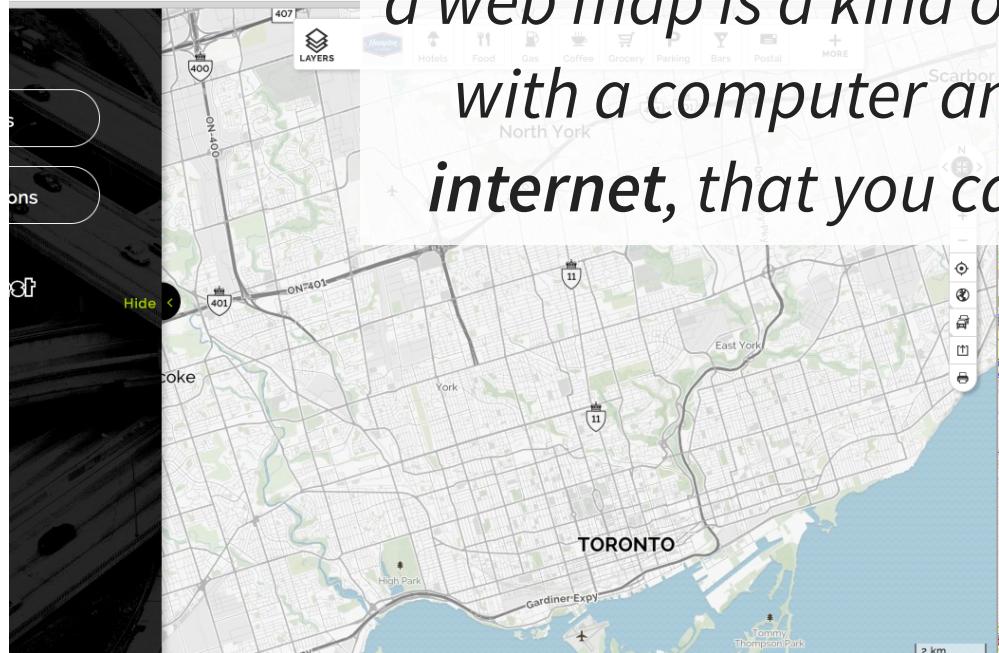
220 Oak St. Toronto, ON



WHAT ABOUT WEB MAPS?



a web map is a kind of digital map... made with a computer and available on the internet, that you can view in a browser





TYPES (OR FEATURES)

static

versus

dynamic

view only

*interactive,
realtime,
animated*

PARTS

There are a lot!

We'll focus on three key parts:

- tiles
- (zoom) levels
- layers

+Beth

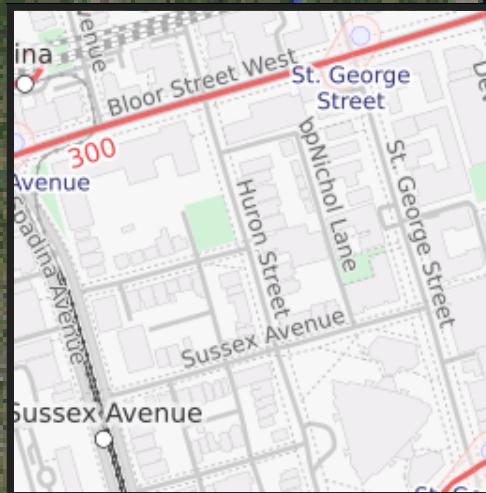
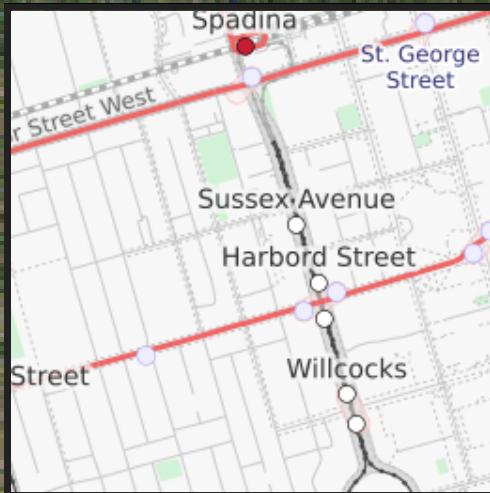


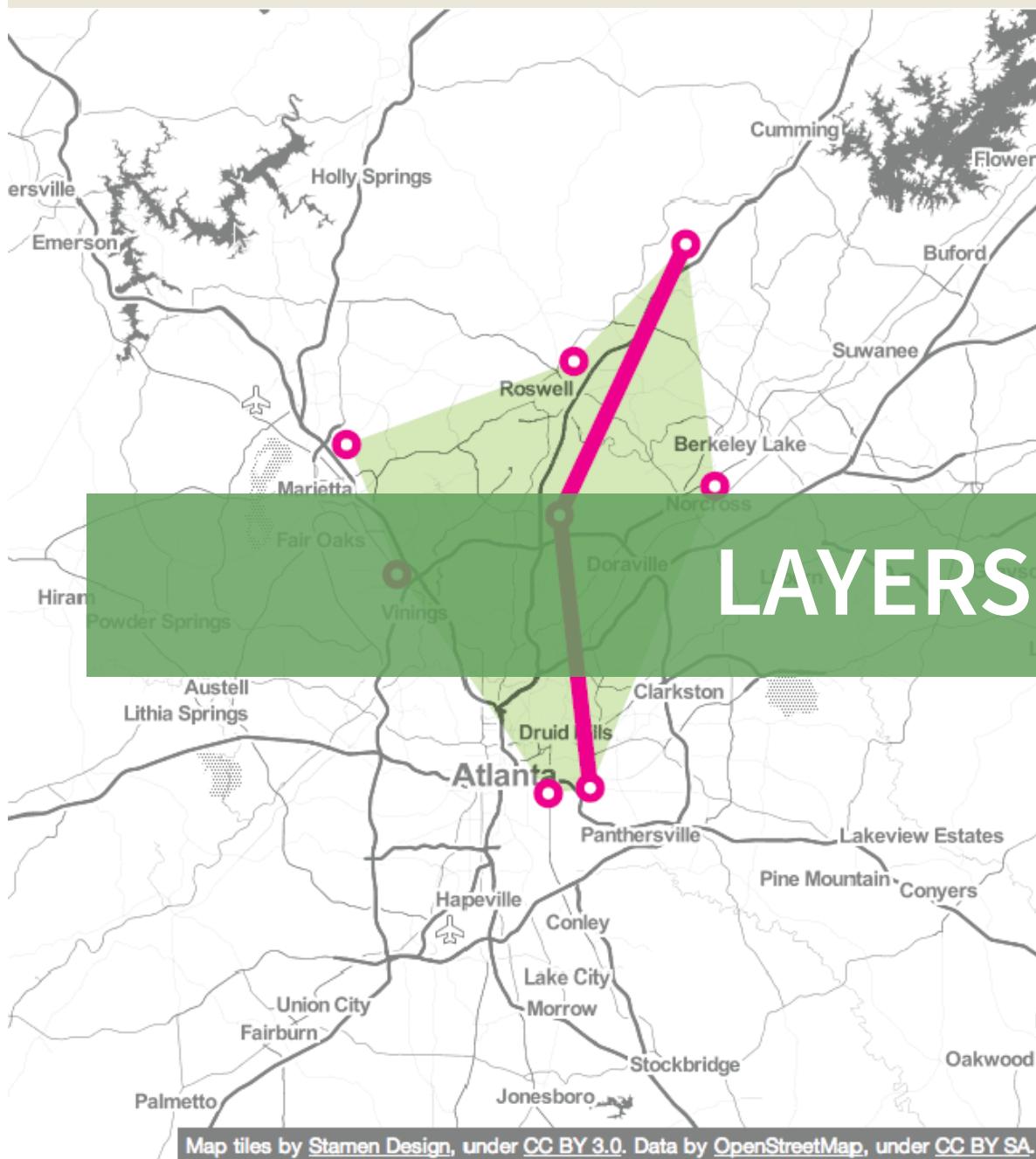
Share



Google

ZOOM LEVELS





Map tiles by [Stamen Design](#), under CC BY 3.0. Data by [OpenStreetMap](#), under CC BY SA.

Base Map

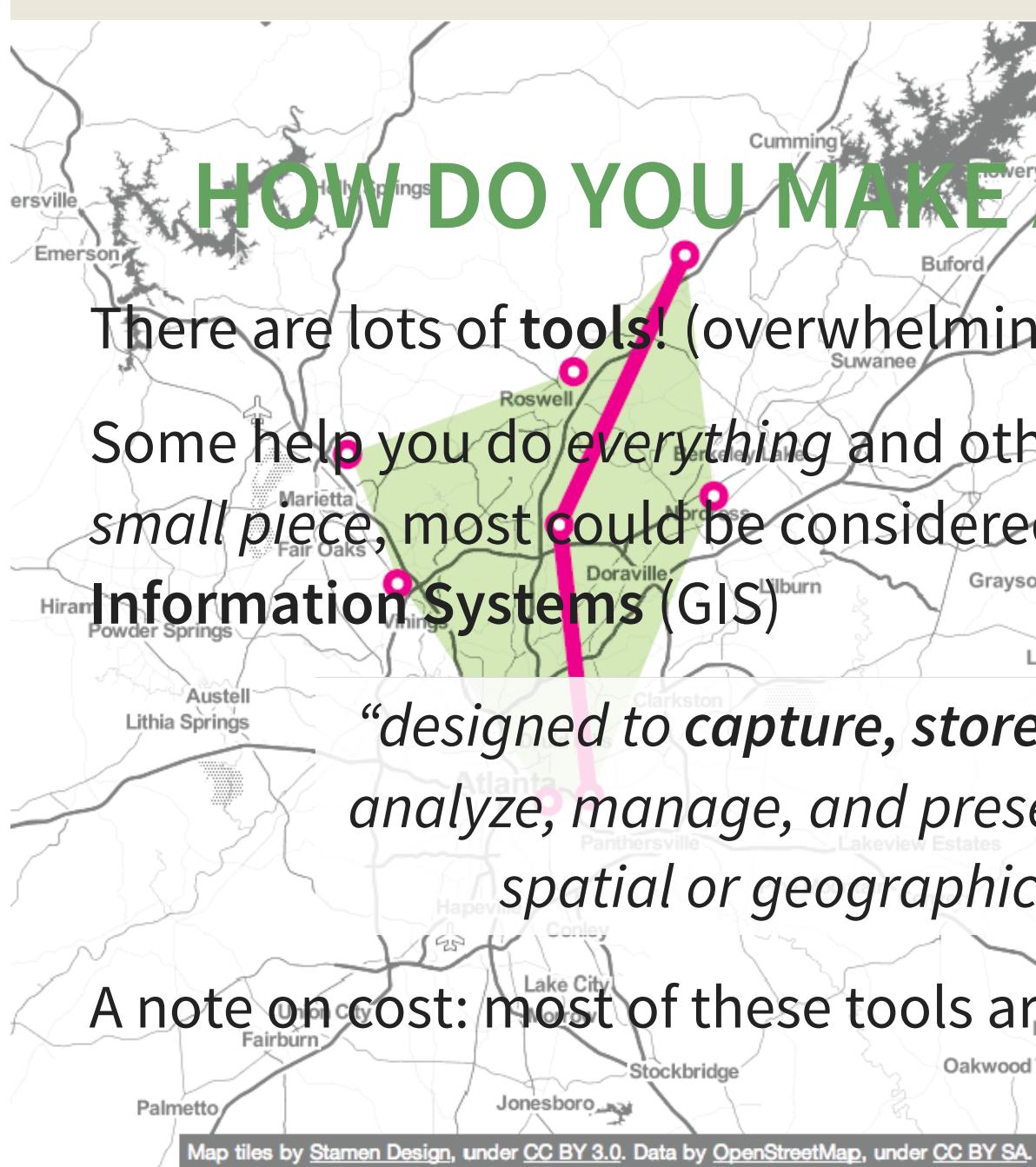
Static data that is always present.
Zoom levels 0–21 affect presentation.

Zoom level styling file: CartoCSS
Tool for styling: Tilemill

Data layers

Points
Lines
Polygons

Tools for building and styling data
layers: Leaflet, CartoDB



HOW DO YOU MAKE A WEB MAP?

Base Map

There are lots of tools! (overwhelming)

Some help you do everything and others only help with one small piece, most could be considered **Geographic Information Systems (GIS)**

Data layers

“designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data”

A note on cost: most of these tools are free up to a point

Static data that is always present.
Zoom levels 0–21 affect presentation.

Tool for styling: Tilemill

Points
Lines
Polygons

Tool for building and styling data layers: Leaflet, CartoDB

SOME GIS TOOLS

https://www.mapbox.com

Mapbox

Products Industries Developers Help & Guides Pricing Blog Log in Sign up

THE NEXT
GENERATION
OF MAP
DESIGN.

Email address [Get started](#)

Mapbox

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https://cartodb.com

Introducing Deep Insights — our location intelligence solution for big data analysis at an unprecedented scale.

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SOLUTIONS ▾

DISCOVER ▾

LEARN ▾

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SIGN UP

MAP YOUR WORLD'S DATA

CartoDB is the Easiest Way to Map and Analyze Location Data

[SIGN UP](#)

CARTO

SIGN UP



Google

NYC



BBVA

ING D
People



ArcGIS ▾ Features Plans Gallery Map Scene Help

Search

Sign In



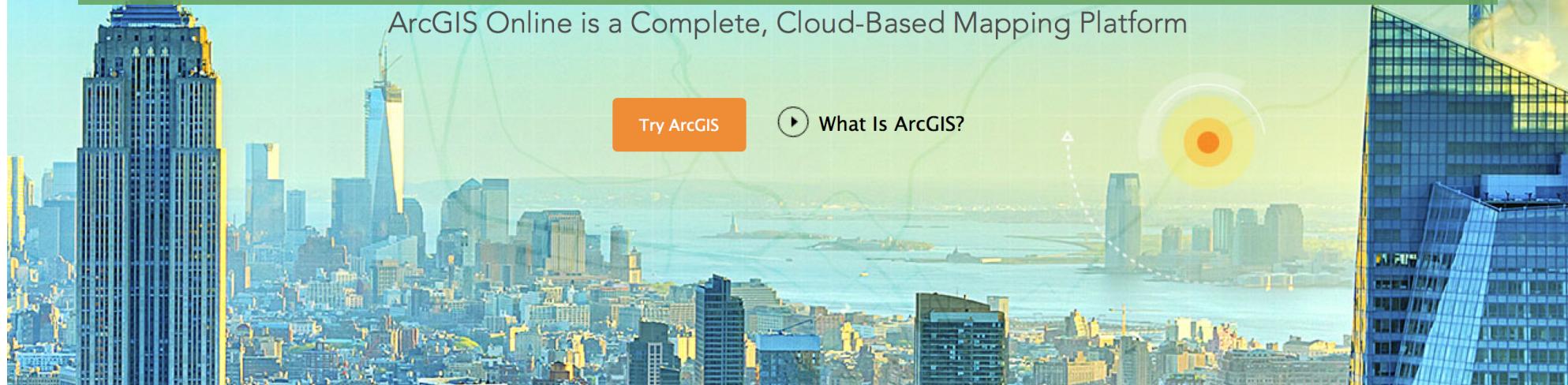
Mapping ARCGIS

Without Limits

ArcGIS Online is a Complete, Cloud-Based Mapping Platform

Try ArcGIS

What Is ArcGIS?



https://developers.google.com/maps/web/

Google Developers Google Maps APIs for Web Search

dawncwalker@gmail.com Change account | Sign out

Products > Google Maps APIs > For Web

Google Maps APIs for Web

Embed Google Maps features and functionality in your sites.

[GET A KEY](#) [VIEW PRICING AND PLANS](#)

SEND FEEDBACK

GOOGLE MAPS AND...

The maps your users love

Use Google's native web APIs for visualizing maps and accessing rich mapping features like accurate directions and Street View. Whether you write JavaScript in your sleep or can't write a single line of code, we've got you covered.



Google Maps JavaScript API

Customize maps with your own content and imagery. Robust feature support.



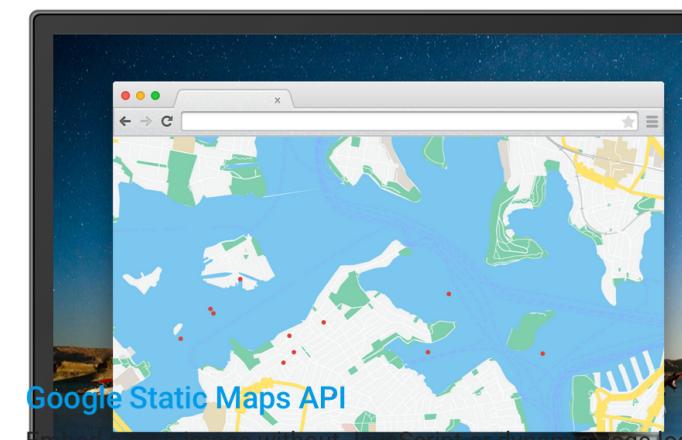
Google Maps Embed API

Add a Google Map to your site without writing code or quota limits.



Google Street View Image API

Real-world imagery and panoramas





an open-source JavaScript library
for mobile-friendly interactive maps

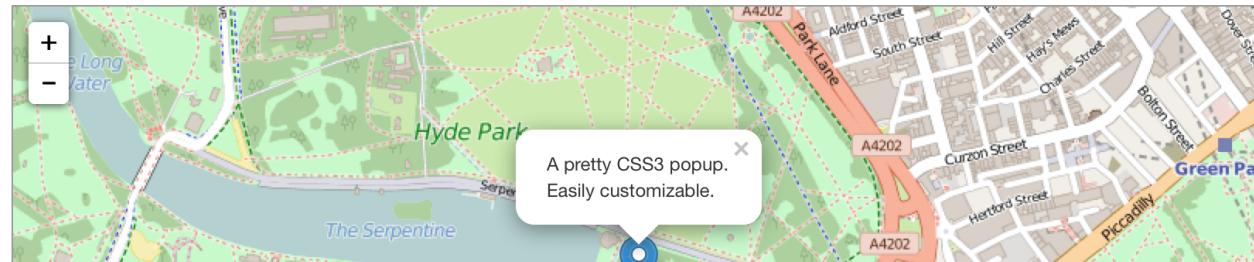


[Overview](#) [Tutorials](#) [Docs](#) [Download](#) [Plugins](#) [Blog](#)

LEAFLET.JS

Leaflet is the leading open-source JavaScript library for mobile-friendly interactive maps. Weighing just about 33 KB of JS, it has all the mapping features most developers ever need.

Leaflet is designed with *simplicity*, *performance* and *usability* in mind. It works efficiently across all major desktop and mobile platforms, can be extended with lots of [plugins](#), has a beautiful, easy to use and [well-documented API](#) and a simple, readable [source code](#) that is a joy to [contribute](#) to.



ACTIVITY: GREEN MAP WEBSITE WALKTHROUGH (20 MINS)

ACTIVITY: GREEN MAP WEBSITE WALKTHROUGH

FURTHER RESOURCES

We performed a modified usability exercise. If you are interested, you could look up "[Usability Testing](#)," "[Heuristic Evaluation](#)," and "[Usability Heuristics](#)"

ACTIVITY: PROTOTYPING A MAP (40 MINS)

ACTIVITY: MAKING A WEB MAP (50 MINS)

ACTIVITY: MAKING A WEB MAP (50 MINS)

Go to mapbox.com/editor

Green Mapping Workshop x Mapbox | Design and publishing

<https://www.mapbox.com/editor/#style>

Style Data Project Save

Streets Light Dark

Satellite Streets Wheatpaste

Streets Classic Comic! Outdoors

Run, Bike, and Hike Pencil Pirates

Emerald High Contrast Transparent

NEXT STEPS

Share your map! (once you save, under "project")

Embed your map (under "project"), test out with jsfiddle.net

Customize the styles or create your own in [Mapbox Studio Classic](#)

Map style Need help? ×

Customize your map by picking a different baselayer. You can customize any of these styles or create your own in [Mapbox Studio Classic](#).

Mapbox -0.176, 0.176, 3 FK

© Mapbox © OpenStreetMap Improve this map

<https://www.mapbox.com/editor/?id=tempgreenmap.pd32kl7p#project>

Style Data Project

Untitled project Need help?

Map ID tempgreenmap.pd32kl7p
For Javascript, iOS, and Web services.

Share https://a.tiles.mapbox.com/v4/tempgreenmap.pd32kl7p

Embed

Zoom & Pan Zoom Wheel Geocoder Link

Advanced

NEXT STEPS

Share your map! (once you save, under "project")

Embed your map (under "project"), test out with jsfiddle.net.

Work with pre-made datasets!

...etc...etc...

Start developing

Once your project is saved, grab the **Map ID** and start developing with our mobile SDKs and web APIs!

Mapbox -0.176, 0.176, 3

© Mapbox © OpenStreetMap Improve this map

KEEP IN TOUCH!

Find me at dcwalker.ca  (not much there),
@dcwalk_ on twitter  (bad at tweeting), or
@dcwalk on github  (still learning)!

torontogreenmap.github.io

workshop materials: github.com/torontogreenmap/workshop-greenmapping