

Web Mapping & Analysis

Introduction

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Today

- Anatomy of the Web Map
- Overview
- Logistics

Anatomy of the Web Map

Google Maps

https://www.google.com/maps/@53.4074092,-2.9845759,14z

Search Google Maps

Home Set location

Work Set location

Moderate traffic in this area
Slower than usual with delays of up to 7 min

Liverpool 8°

Restaurants Hotels Bars Coffee More

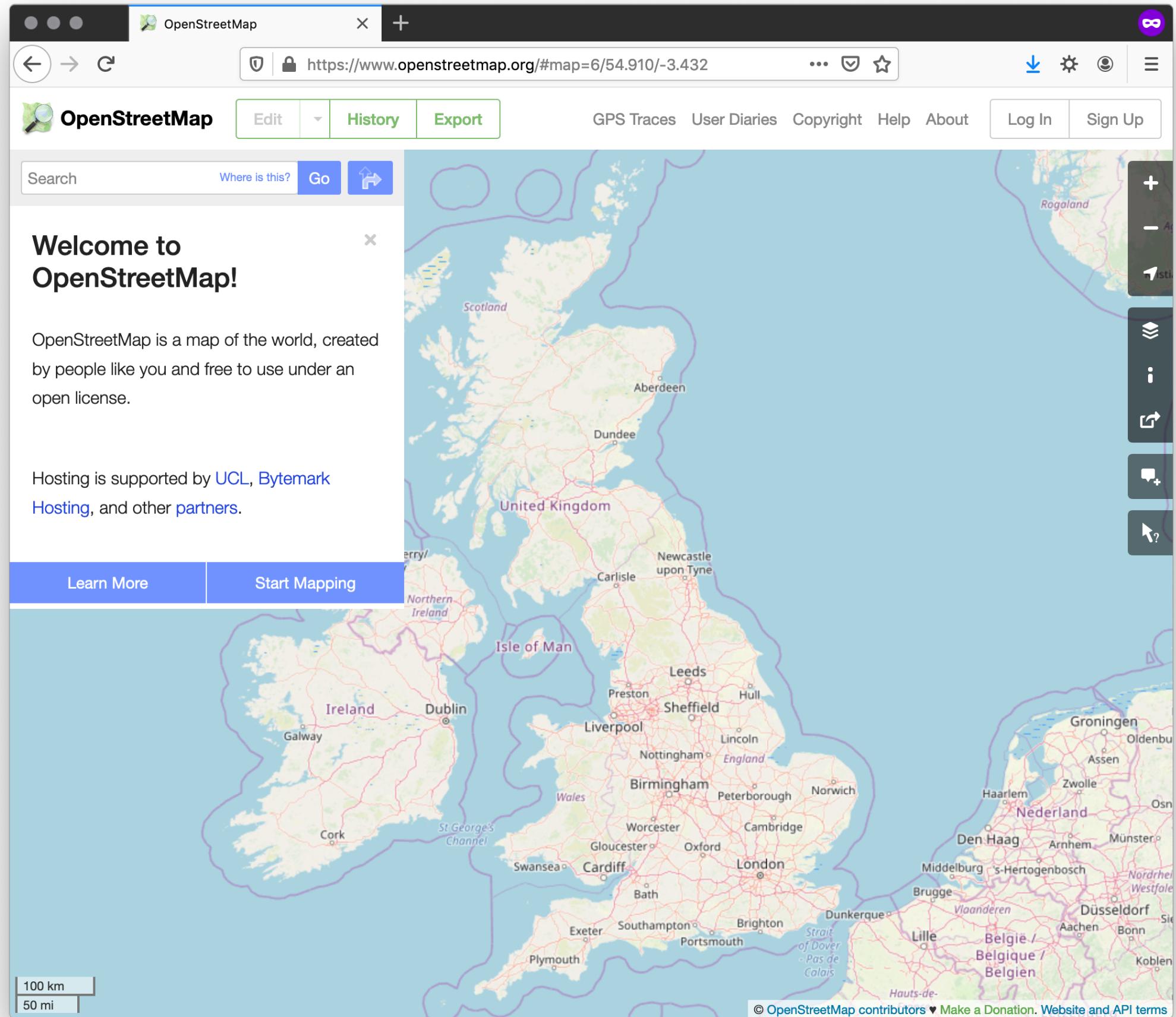
Satellite

Map data ©2020 United Kingdom Terms Send feedback 500 m

Sign in Arts City Centre

Collapse side panel

The map displays the city of Liverpool, United Kingdom, with various landmarks and road networks. Key areas labeled include VAUXHALL, KENSINGTON, EDGE HILL, ROPEWALKS, KNOWLEDGE QUARTER, and TOXTETH. Major roads shown are A5054, A5038, A59, A5053, A5039, A562, A561, A5037, A5036, A5089, and B5173. Traffic conditions are indicated by yellow lines on the roads. The map also shows the River Mersey and several bridges. Landmarks such as the World Museum, Walker Art Gallery, Primark, Liverpool Metropolitan Cathedral, Liverpool Cathedral, and Toxteth Park Cemetery are marked. The weather is currently 8° Celsius.





Consumer
Data
Research
Centre

An ESRC Data
Investment

CDRC

Data

Maps

Indicators & Stories

NRDF

CDRC Maps

Mapping selected datasets from
CDRC Data, part of the Consumer
Data Research Centre.

DATA CHOOSEN

Geodem Indicators Metrics

Select a map:

Index of Multiple Deprivation 2019

MAP OPTIONS

Layers: Land Labels

Overlays: Pin Clear

Tip: Try dropping KML or
GeoJSON files onto map.

Postcode: Go

CENTRES & CATCHMENTS

JUMP TO CITY

Aberdeen Birmingham Brighton
Bristol Cardiff Edinburgh Glasgow
Leeds Liverpool London
Manchester Newcastle Plymouth

[Tweet](#)

Prenton

Important note: Classifications are an
average across the local area, rather than for
individual houses, therefore the colour coding
on a building is not necessarily indicative of
that building.

INDEX OF MULTIPLE DEPRIVATION 2019

2010

2015

2019

Value Change

Liverpool

Wavertree

Chiltern 004D.

ID: E01017793

Decile

6

Rank

18775

MAP KEY

Index of Multiple Deprivation 2019

The Indices of Deprivation for England
in 2019 - showing the overall rank (out
of 32844), split into deciles.

[Download these data](#)

Most deprived decile

2nd

3rd

4th

5th

6th

7th

8th

9th

Least deprived decile

Data missing

Data not available

About/Attribution

The Indices of Deprivation
for 2019 were calculated by
the OCSI on behalf of the
UK Government. The data

Building blocks of a web map

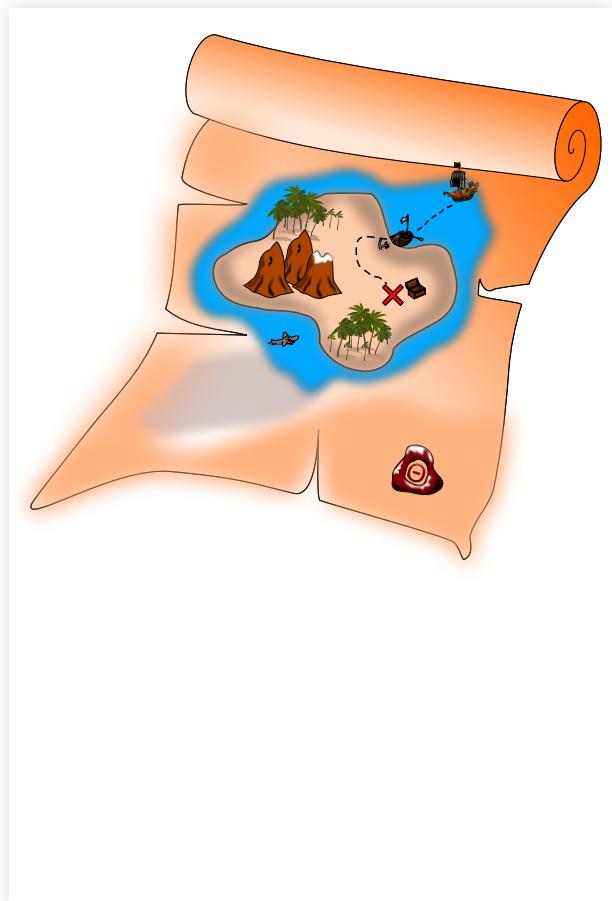
- (Geo-)Data
- Hardware
- Software
- (Effective and beautiful) Design

(Geo-)Data

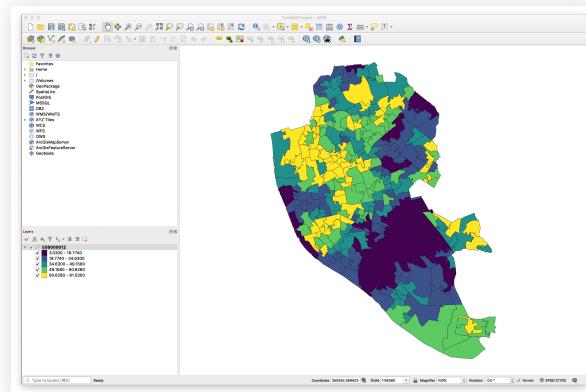
“Data graphics visually display measured quantities by means of the combined use of points, lines, a coordinate system, numbers, symbols, words, shading, and color”

The Visual Display of Quantitative Information. Edward R. Tufte

Hardware

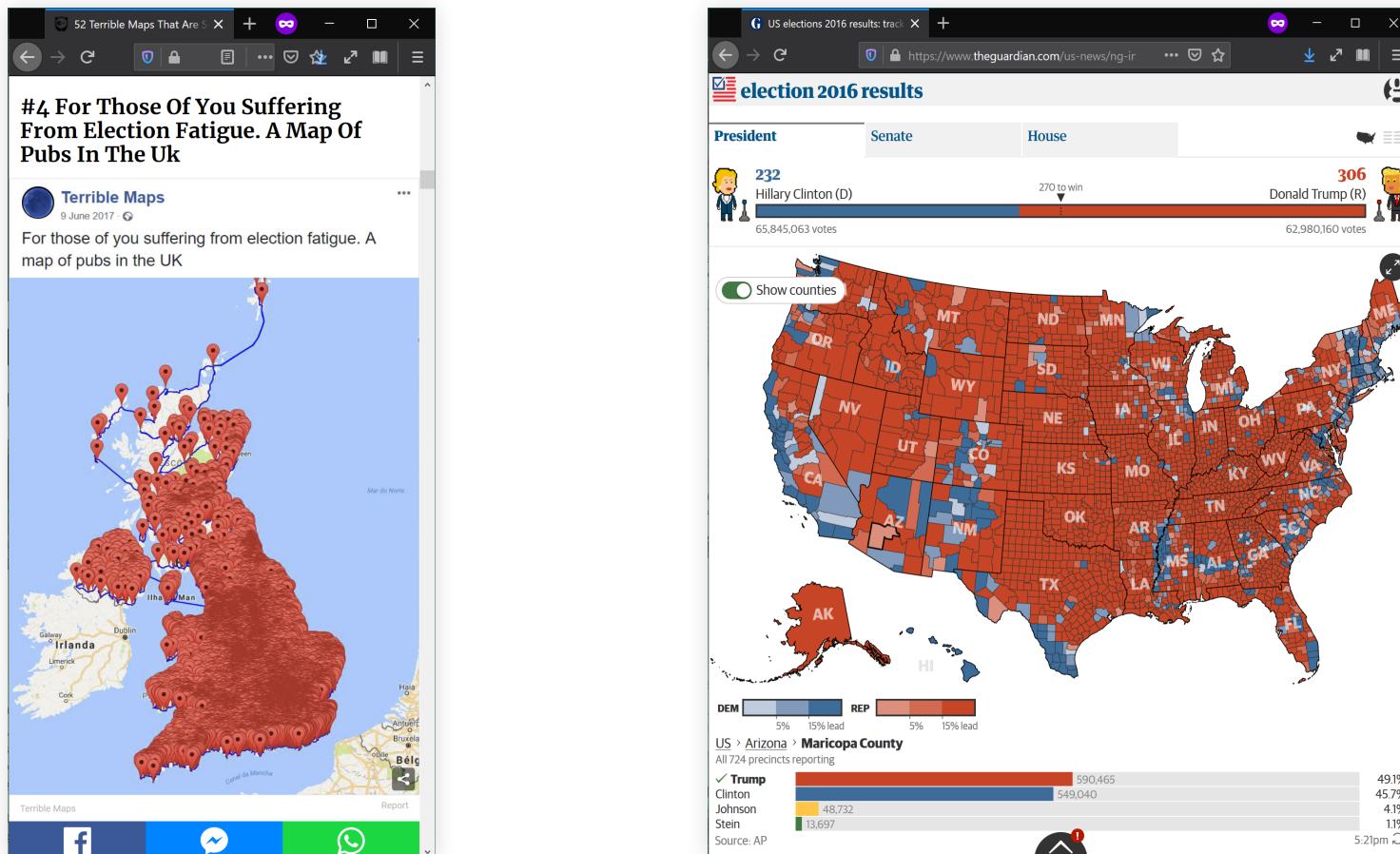


Software

A screenshot of a terminal window titled 'alpha_shapes.py [source] /tmp/tktemp100.log - OMM'. The window displays Python code for calculating alpha shapes. The code includes imports for numpy, scipy.spatial, and timeit, and defines a JIT compiler for a function named 'dist'. It also includes examples of how to use the 'dist' function to calculate distances between points.

url

Design



url

Overview

Content

- W1 - 2 Introduction & Context

- W3 - 5: Data Backends

- W6 - 8: Frontend Topics

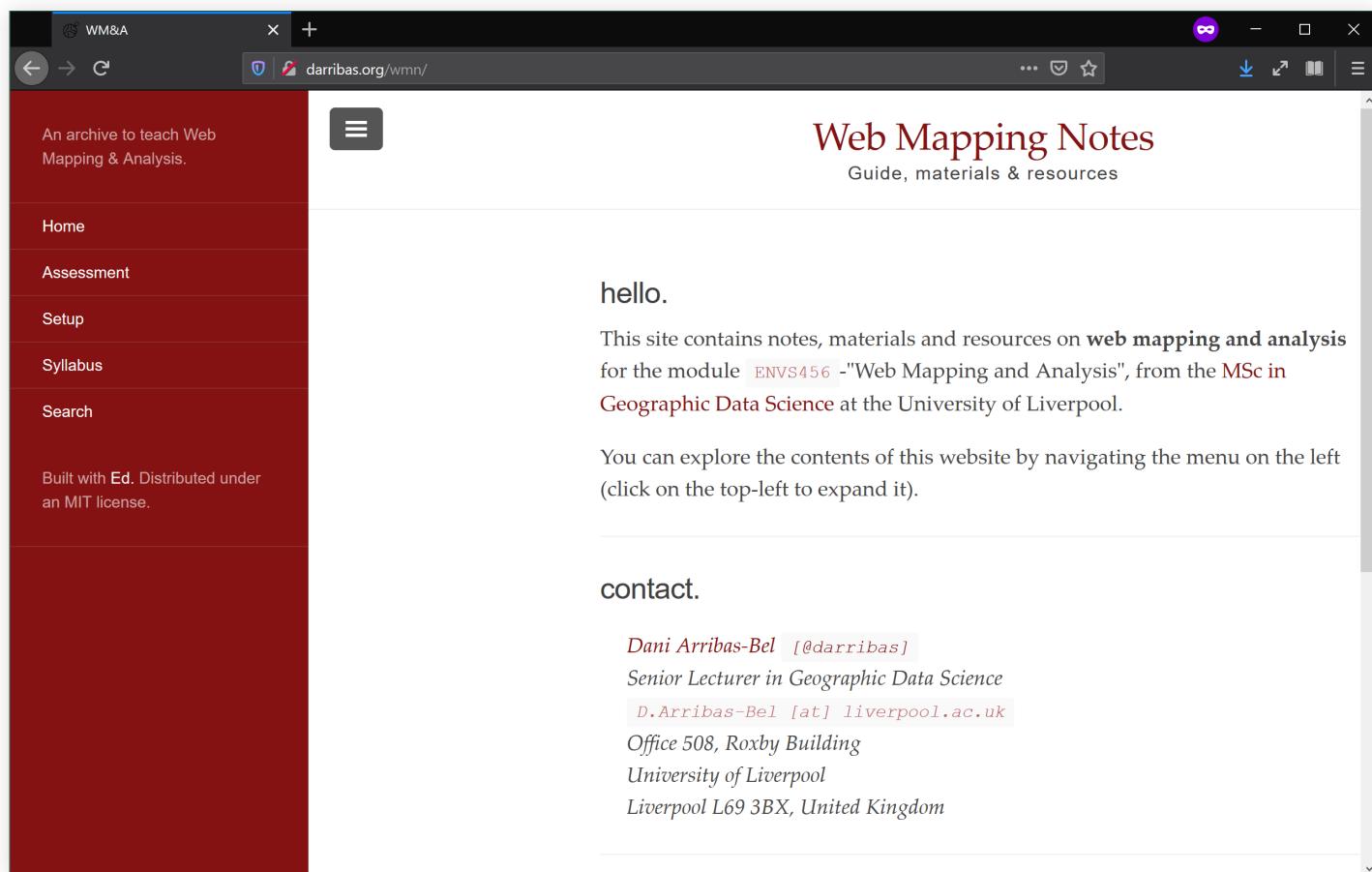
- W9 - 10: Extensions

Assessment

- Two pieces of **coursework** (50%/50%)
- *Equivalent* to 2,500 words each
- Due on **W-5** and **W-10**
- Description in lectures + lab clinics

Logistics

Website



darribas.org/wmn

Lecture/Labs

Lectures: Mondays 9am-10am @SCTH - SR9

- Underlying concepts
- Context

Labs: Mondays 3pm-5pm @502 - PCTC - C

- Hands on
- Interactive

Teams

The screenshot shows the Microsoft Teams application interface. The left sidebar has a dark theme with white icons and text. It includes links for Activity, Chat (with 1 unread message), Teams (selected), Assignments, Calendar, Calls, Files, and Apps. The main content area shows the 'ENVS456' team page. At the top, there's a search bar and a profile picture. The navigation bar includes 'General' (selected), Posts, Files, Class Notebook, Assignments, Grades, and a plus sign for new items. Below the navigation, the 'General' channel is selected. The main content area features a 'Welcome to ENVS456' message and a 'Choose where you want to start' section with 'Upload Class Materials' and 'Set up Class Notebook' buttons. A decorative image of a blue notebook, red scissors, and pencils is displayed. At the bottom, there's a text input field for starting a conversation and a toolbar with various icons.

Search or type a command

Activity

Chat

Teams

Assignments

Calendar

Calls

Files

...

ENVS456

All teams

...

General

Lab No.2

General

Posts

Files

Class Notebook

Assignments

Grades

+

Welcome to ENVS456

Choose where you want to start

Upload Class Materials

Set up Class Notebook

Start a new conversation. Type @ to mention someone.

A ⌂ ☺ GIF 🎉 ➡️ 📁 ...

Homework

For next week:

- Bring at least one example of web mapping that you find compelling
- Contribute the link to Teams



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