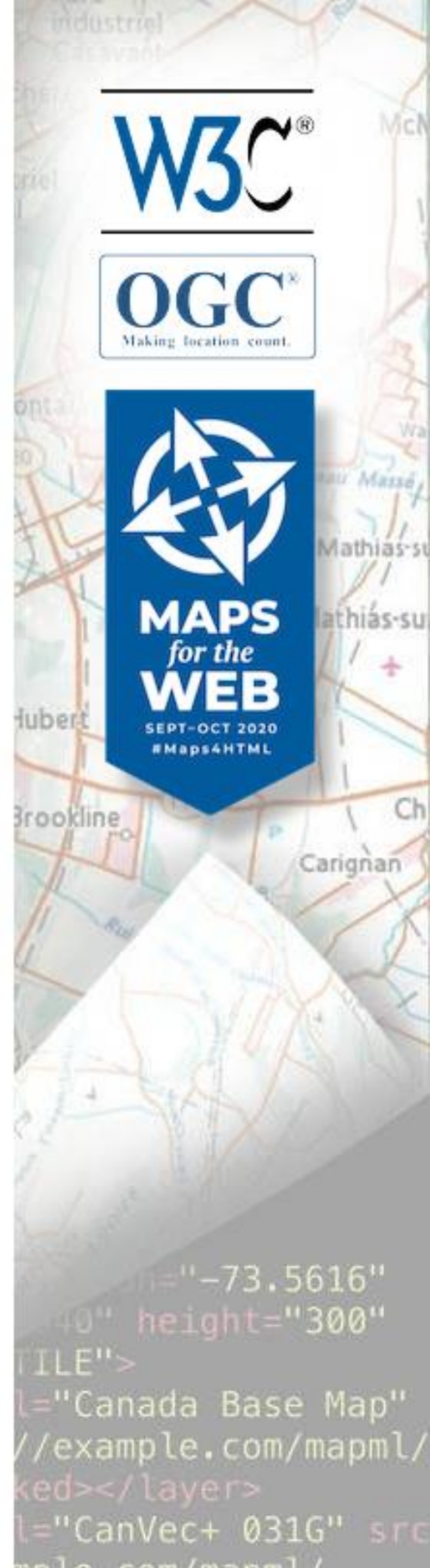# WHY MAPS FOR HTML

Peter Rushforth
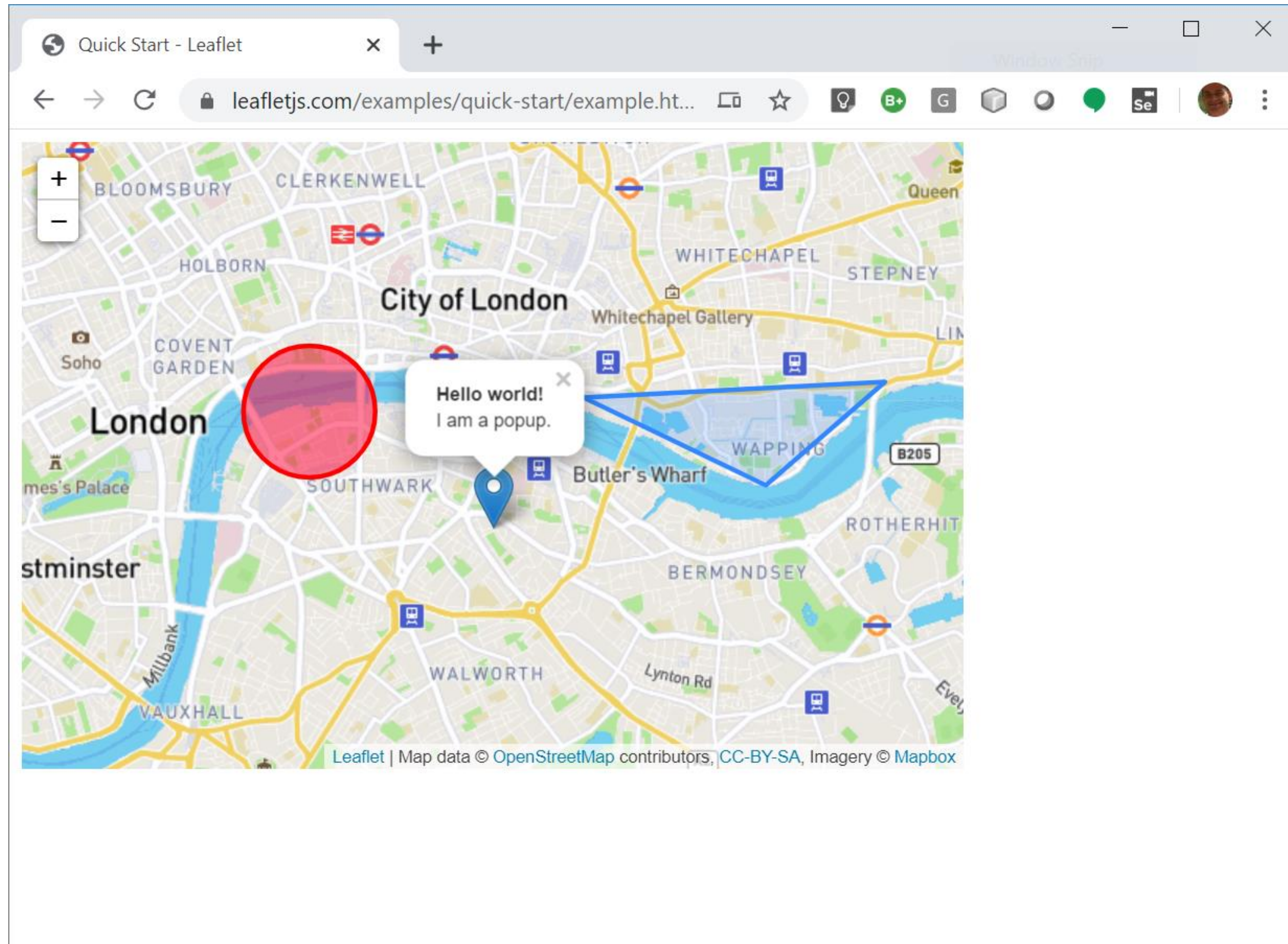
September 21st 2020
W3C/OGC Joint Workshop Series on Maps for the Web
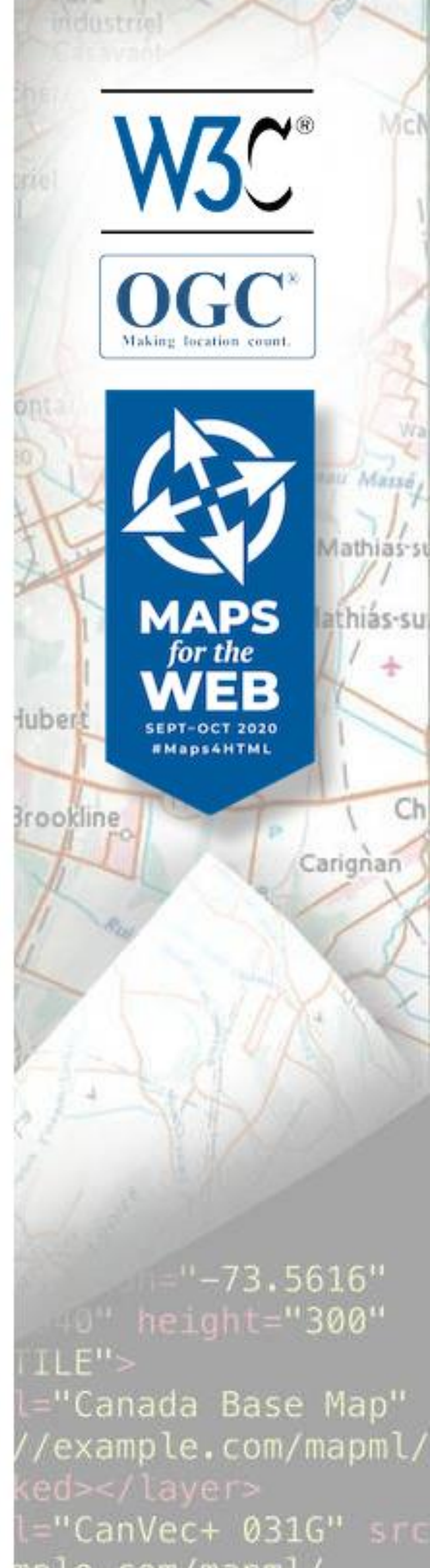w3.org/2020/maps/

How To Make a Map For the Web
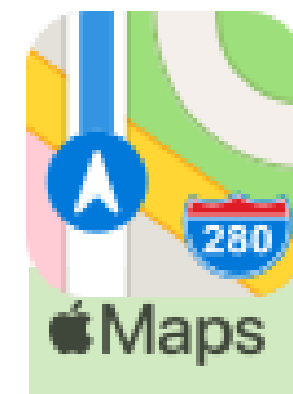
It's easy… right?

Choose a Mapping Framework

The Result: Silos

https://commons.wikimedia.org/wiki/User:Mauryfrapi

Why Do Silos Exist?

- Intentionally: to create barriers to changing platforms e.g. Swift, Kotlin, React, PL/SQL

- Accidentally: leave out a feature on your platform so that organizations have to create methods to accomplish their goals

    - Hanlon's Razor: Never ascribe to malice that which can be explained by misunderstandings and oversights
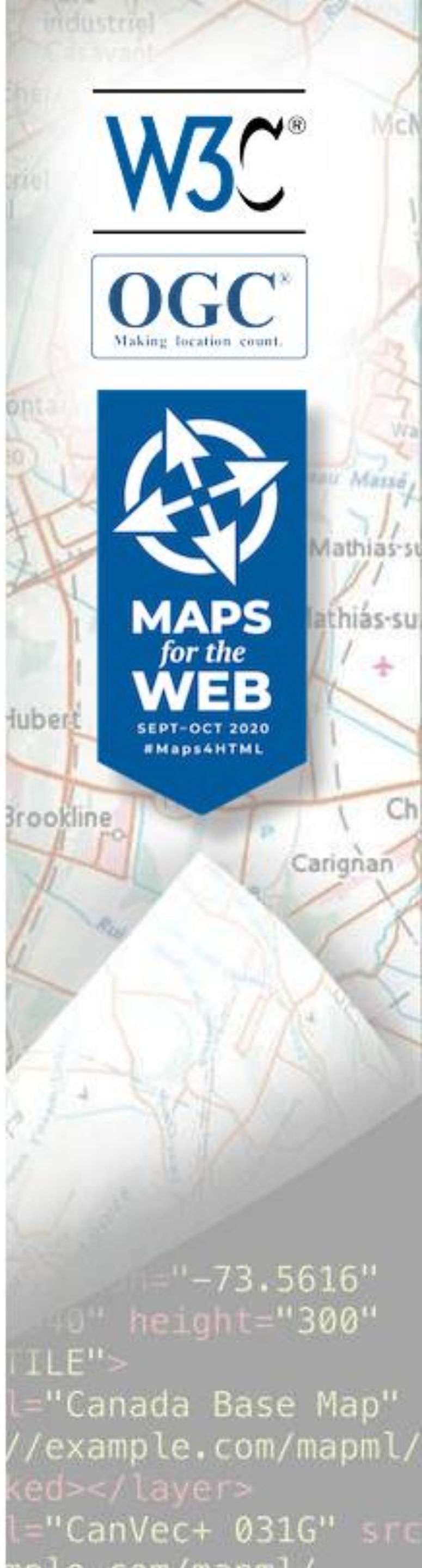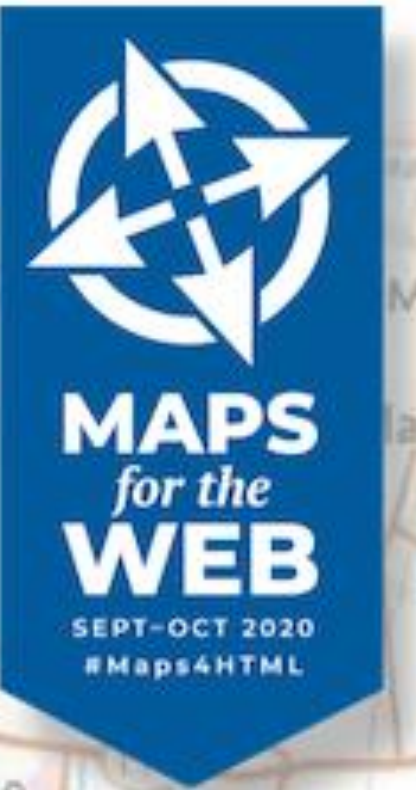
This Workshop Is About Standards

Disappearing Silos?

Real-World Infrastructure

Must be:

o Safe
o Fair
o Durable
o Cost-effective

Virtual Infrastructure
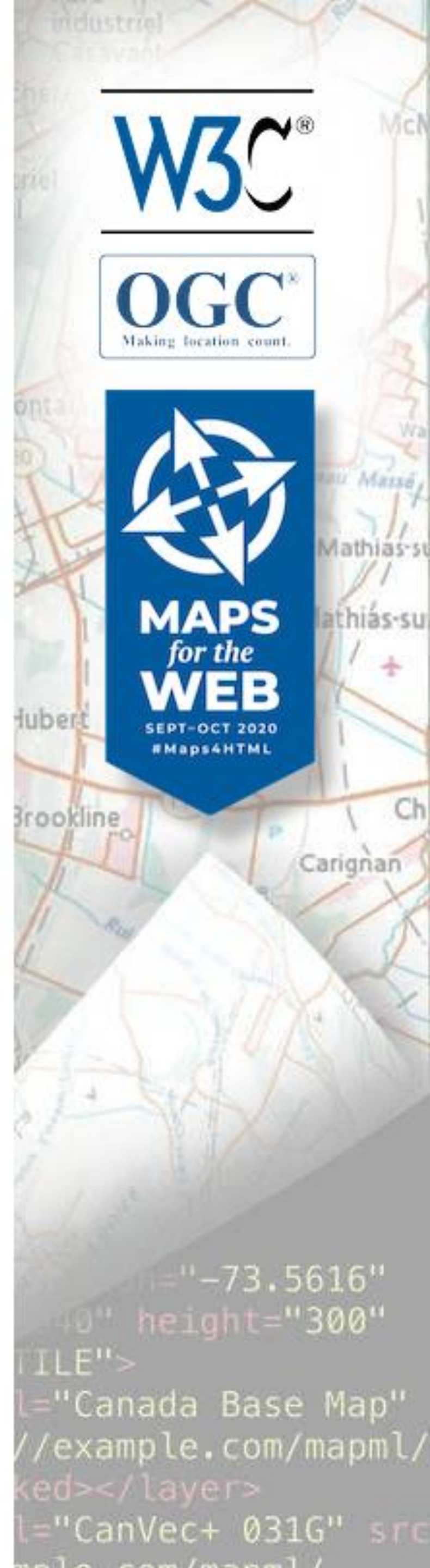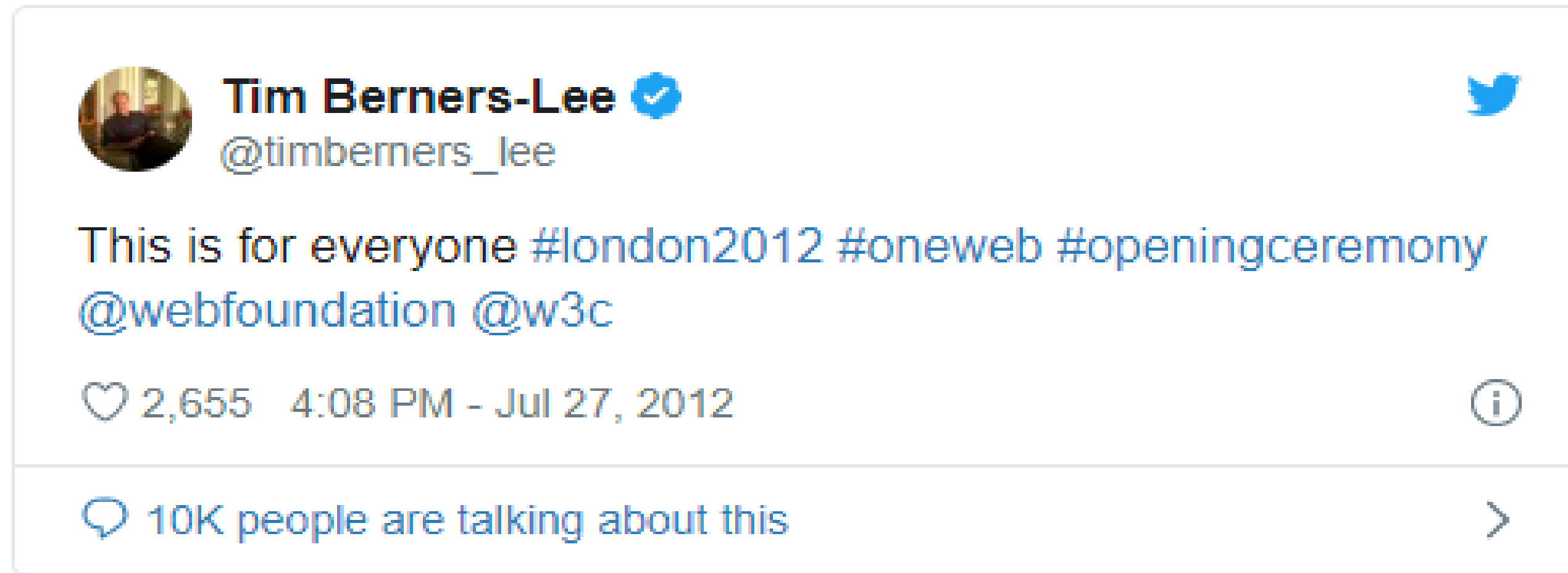
How To Avoid Creating More Silos?
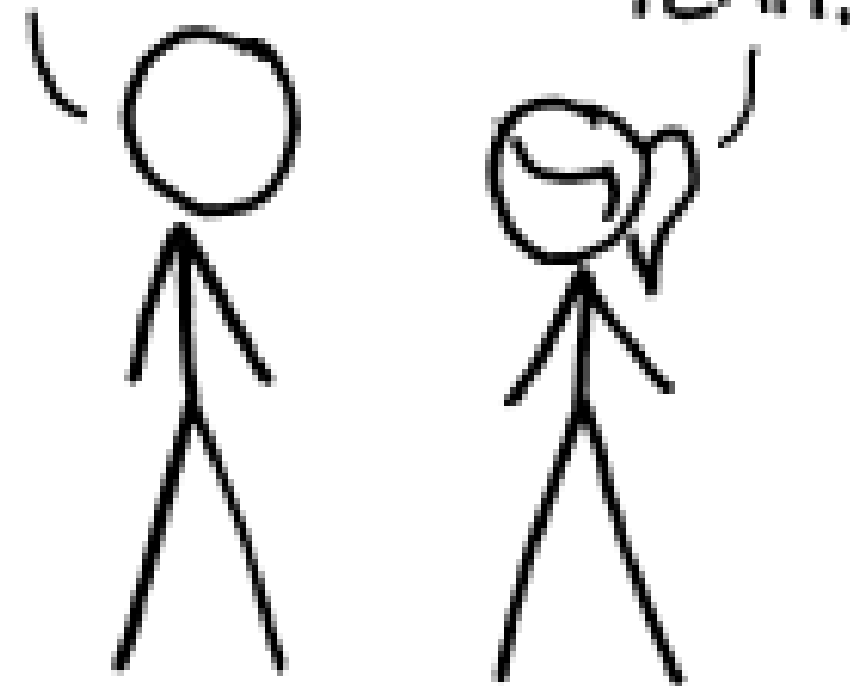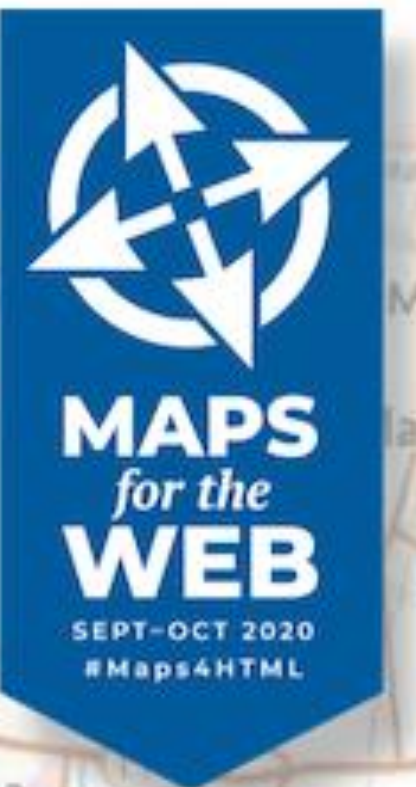
The Bedrock of Standards
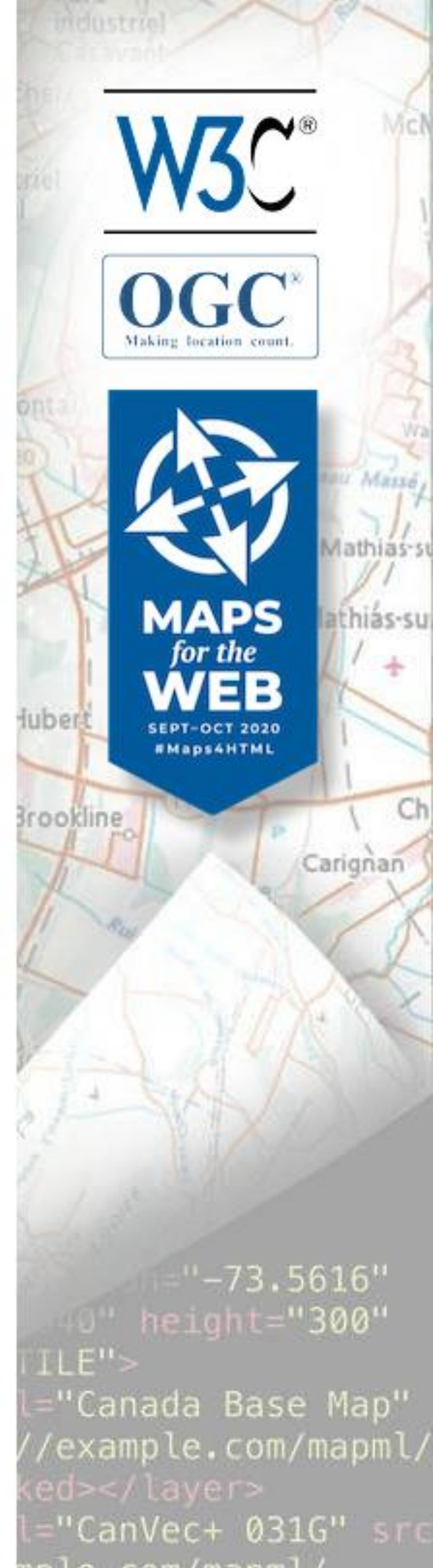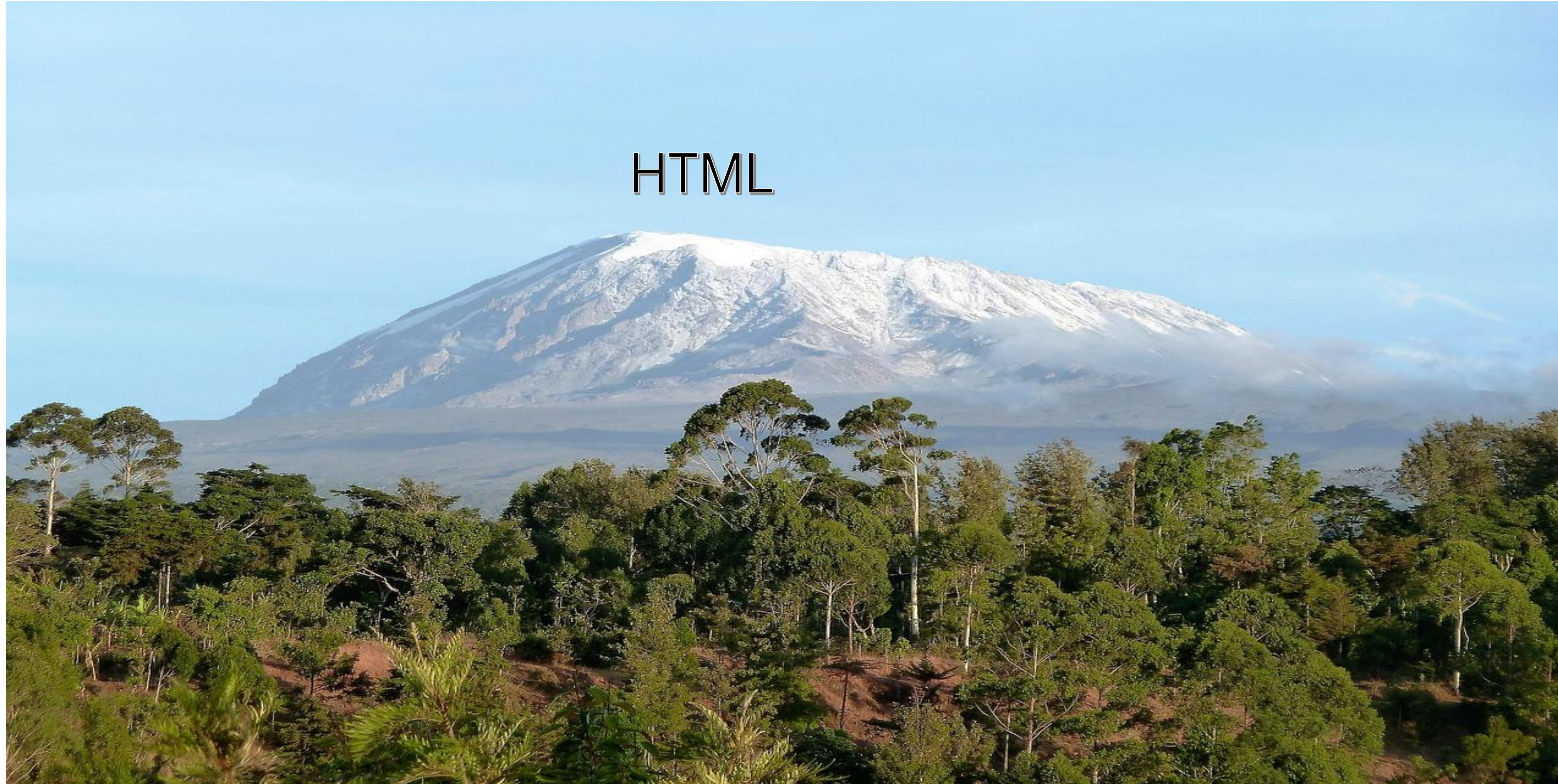
HTML

HTML Is the Web's Standard Library

- Declarative

  - A single element executes functionality that is pre-defined

  - Cross-platform like nothing before, since, or in the future; it is a platform in itself.

HTML
↑
C++/Rust
↑
Assembler
↑
Binary machine code

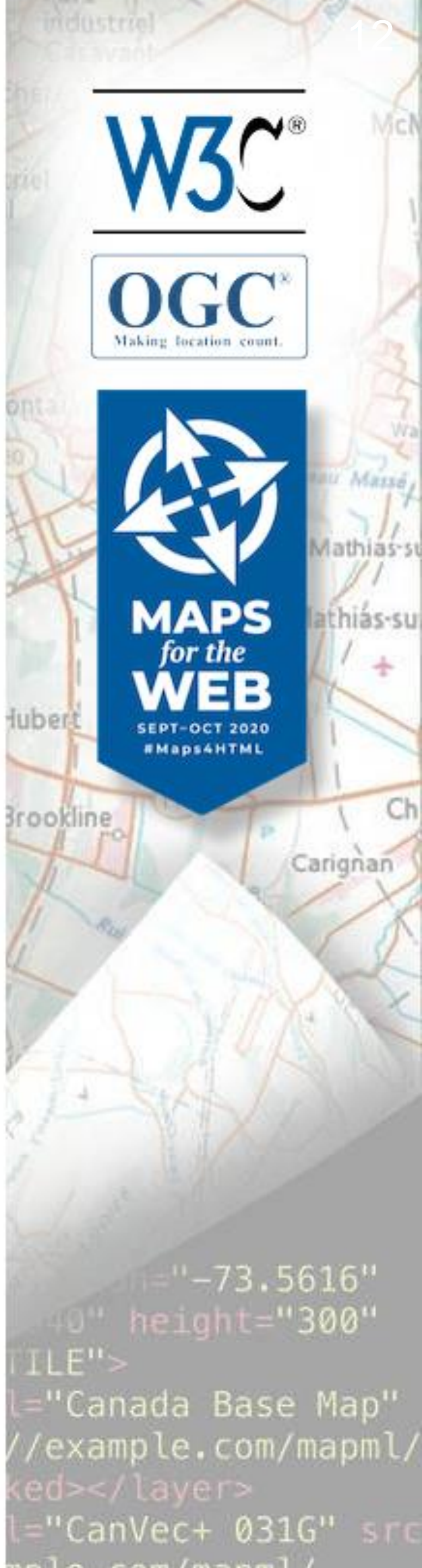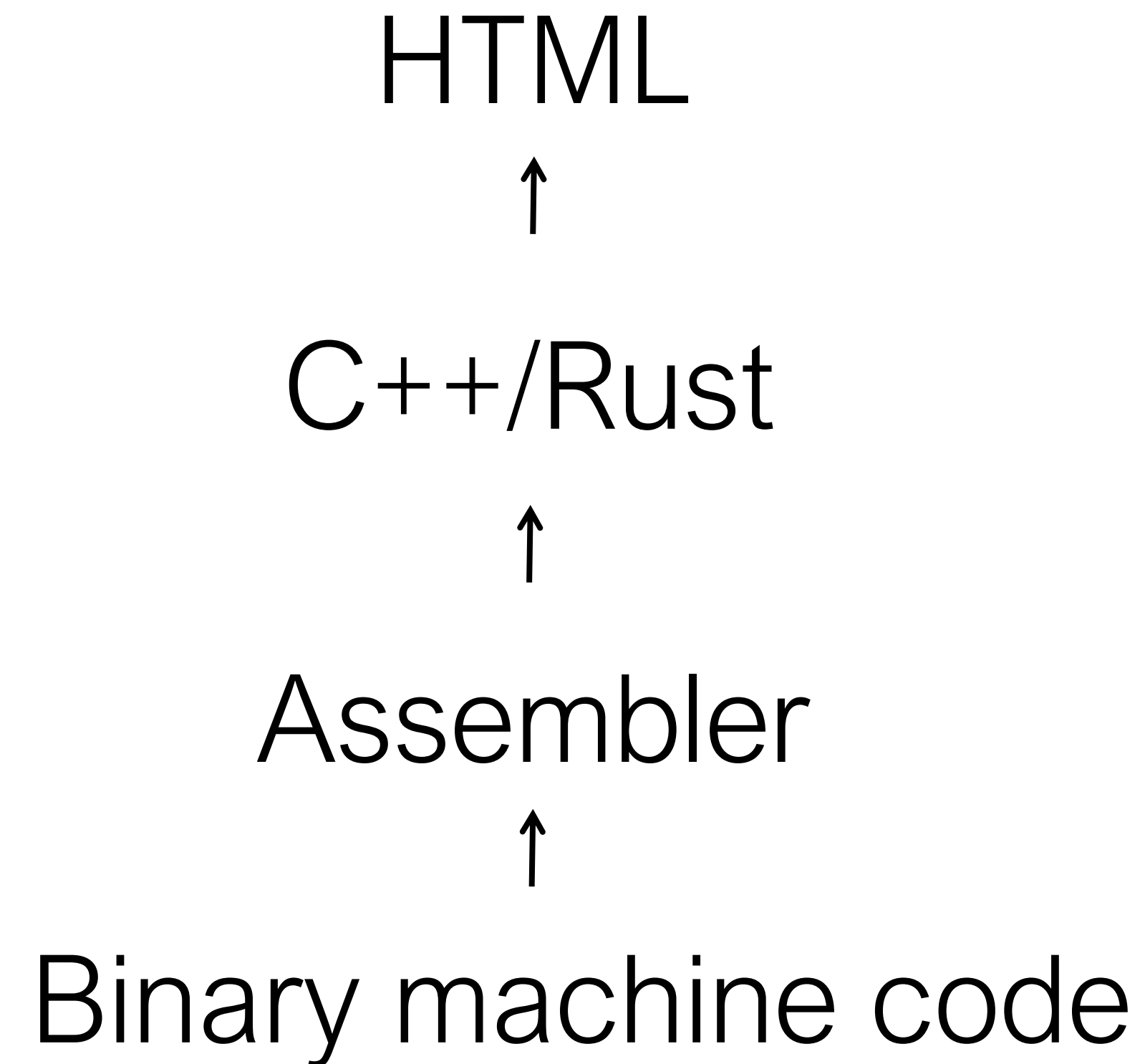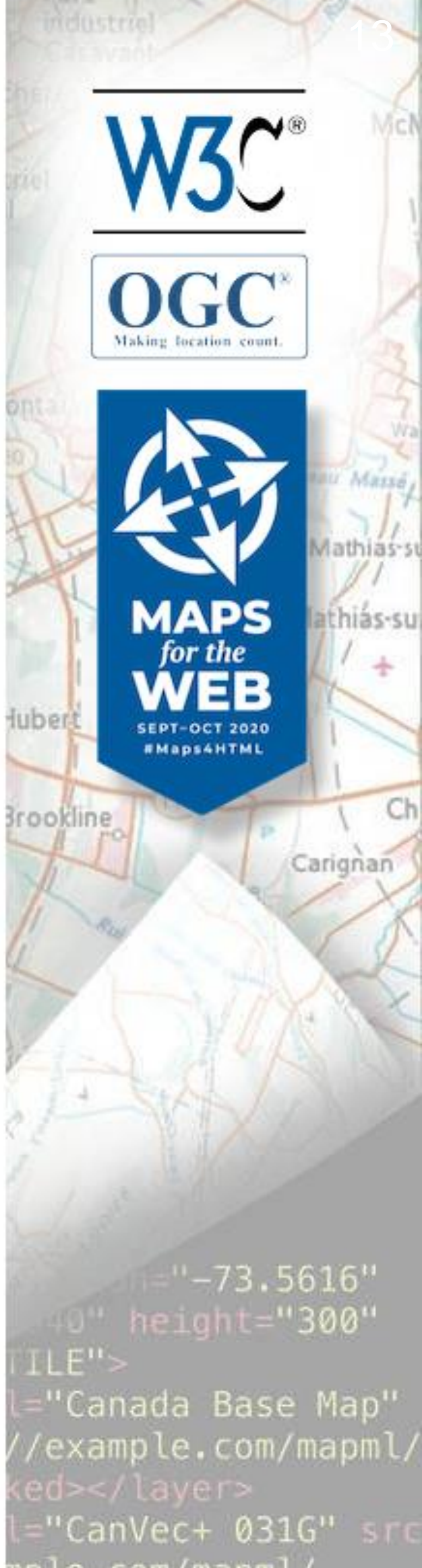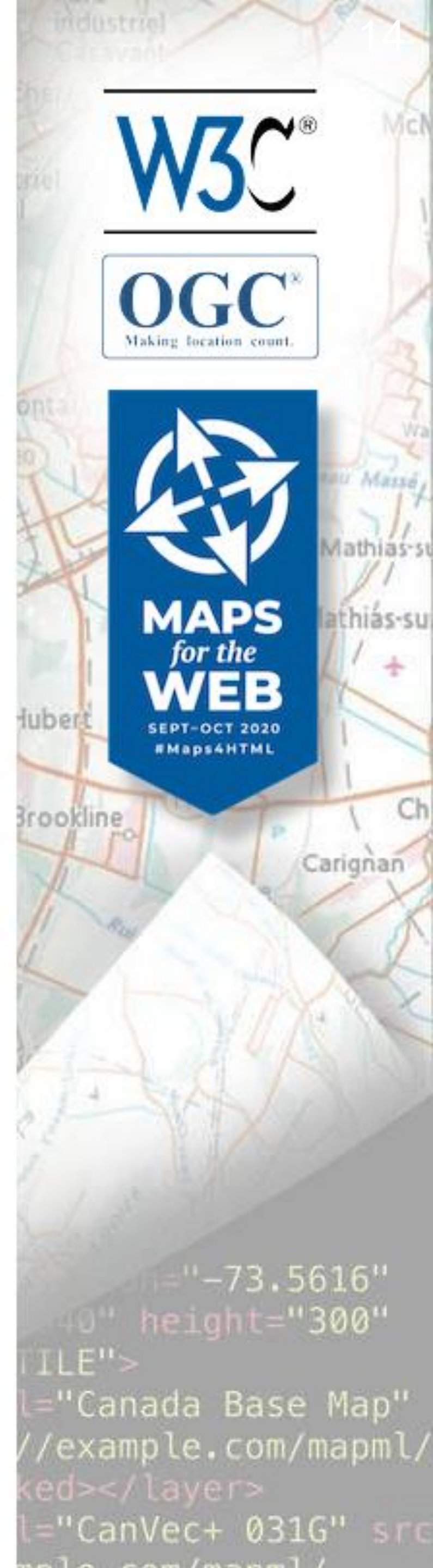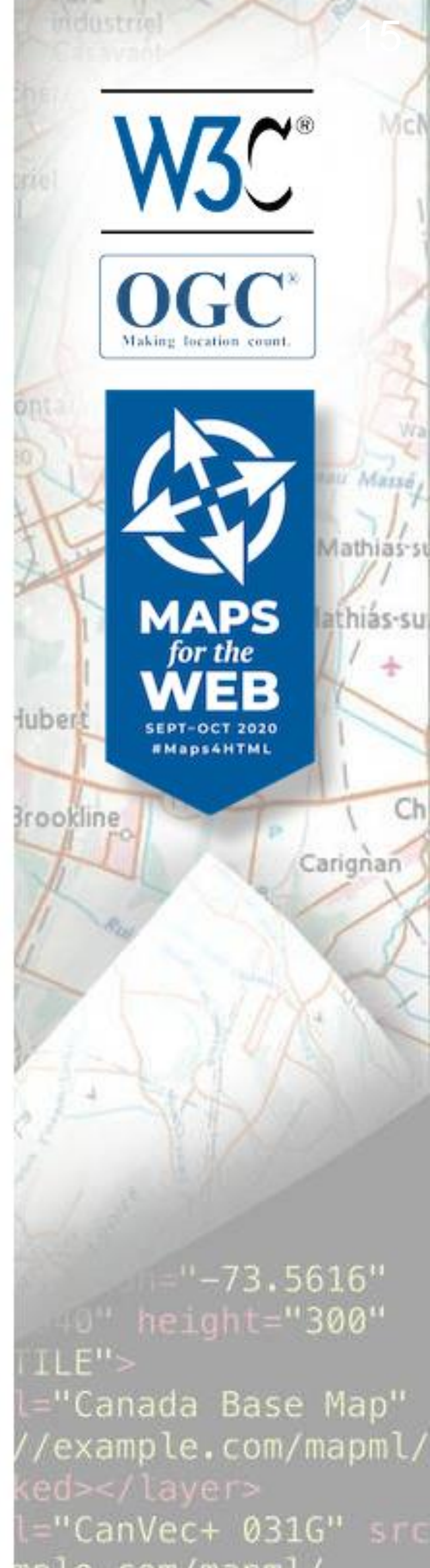# HTML is Simple

Developers

HTML Is Standard

Does HTML Actually Change?

- Yes, but…
  - HTML5 was a concerted effort, over a decade
  - Little appetite for similar efforts
- The new process:
  - Extensible Web Manifesto:
    - Feedback from developer community (e.g. us)
      - Implementation by in browsers of evident needs
    - HTML / high-level requirements emerge
    - Goto 1.
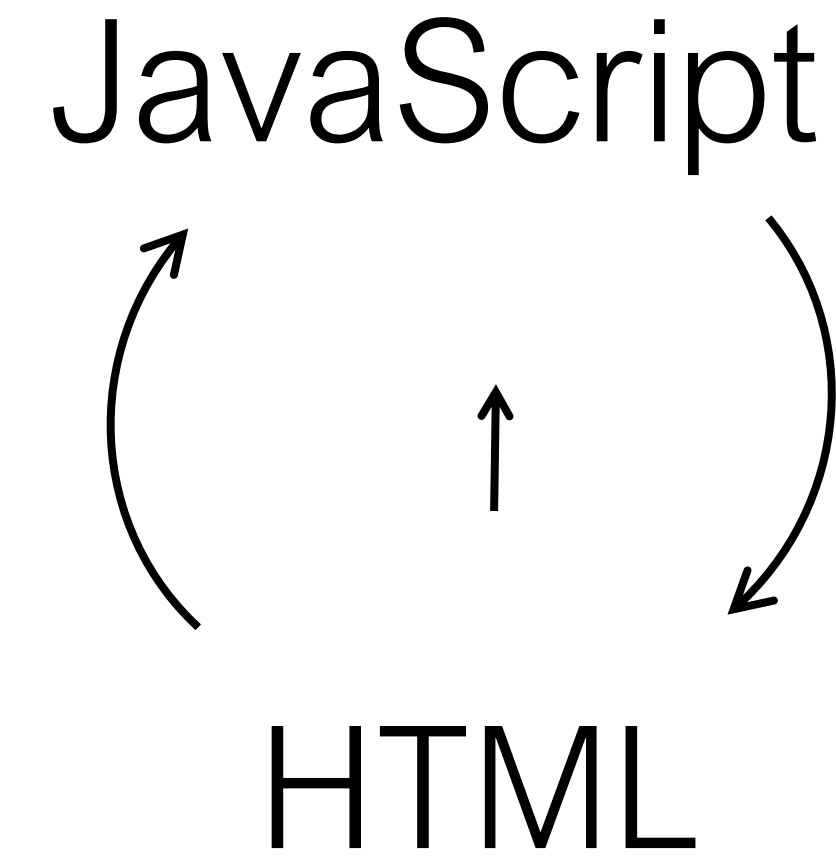
JavaScript

↑

HTML

The Emergent GeoWeb

Maps in HTML of the Future
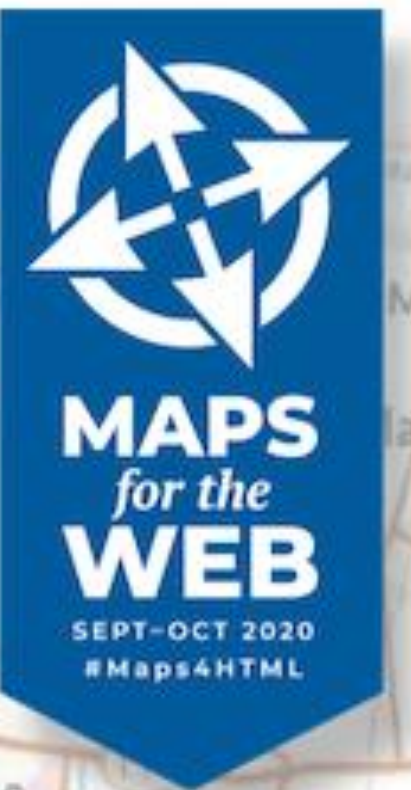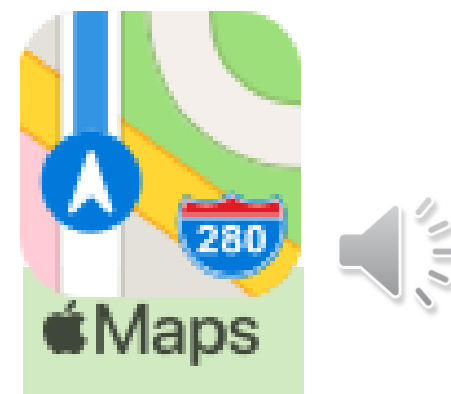
```
<!DOCTYPE html>
<html>
  <head>
    <title>Future Web Map in HTML</title>
  </head>
  <body>
  <map zoom="13" lat="51.505" lon="-0.09" controls>
    <layer label="Open Street Map"
  src="http://example.com/mapml/osm/" checked>
  </map>
  </body>
</html>
```
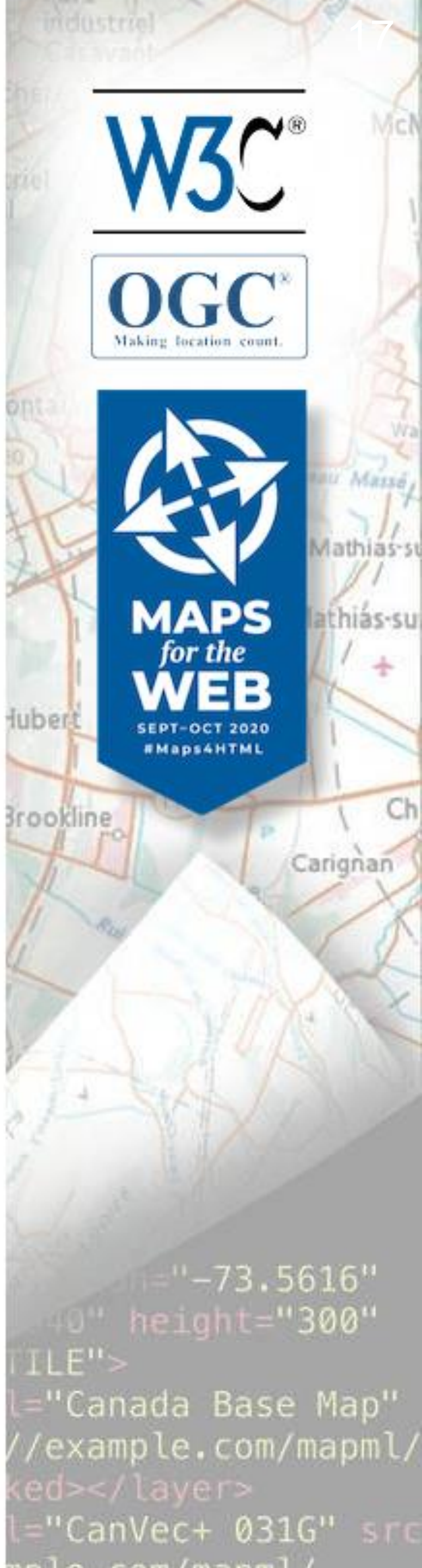
HTML Has Evolved Over Time

- Text - <p>

- Images - <img>

- Vector graphics - <svg>

- Audio - <audio>

- Video - <video>

- Mobile / Responsive - <img srcset>, <picture>

- Maps - <map>

How Does Feedback Happen?

1. Feedback from developers (e.g. you)
   • Implementation by ~~browsers~~ communities
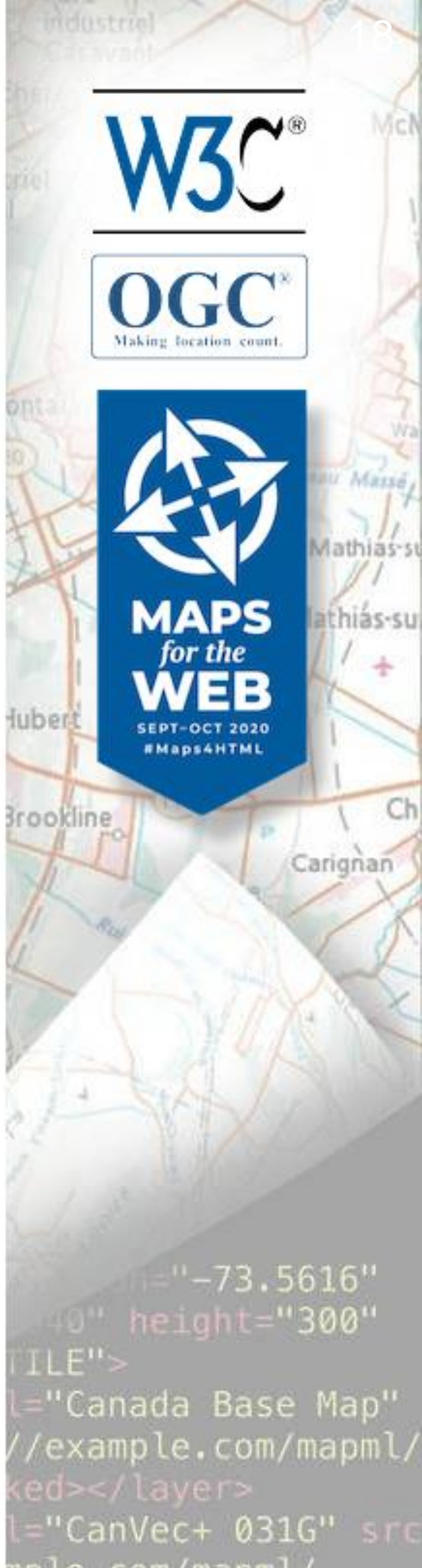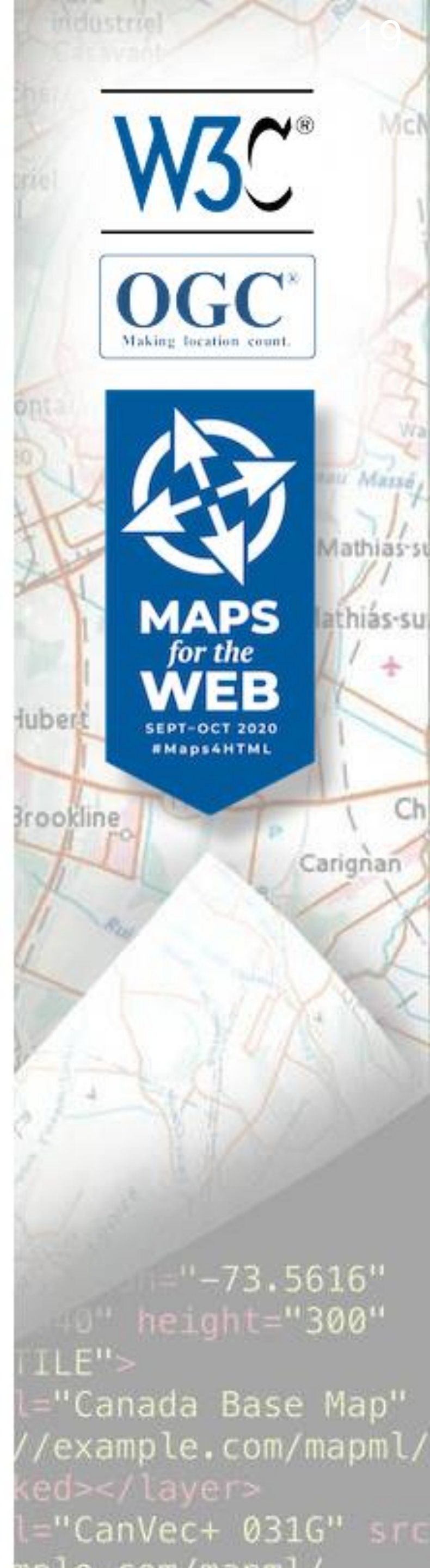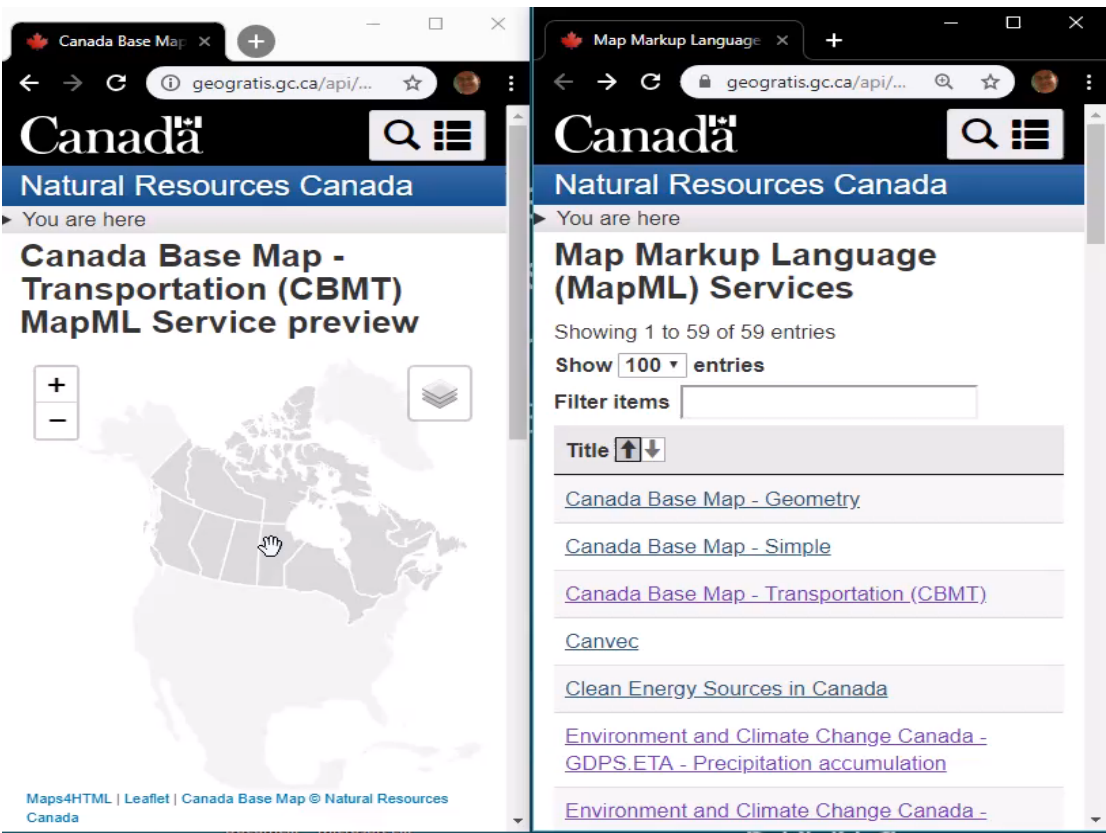2. HTML requirements emerge
3. Goto 1

• Join and contribute to the Maps for HTML Community Group:
   • maps4html.org
• The annual Mozilla Web Developer Needs Assessment
   • – WebDNA - mention maps (and MapML!).

The Interoperable GeoWeb of the Future

Users Sharing – Linking To Infrastructure

Users Search - Discovery
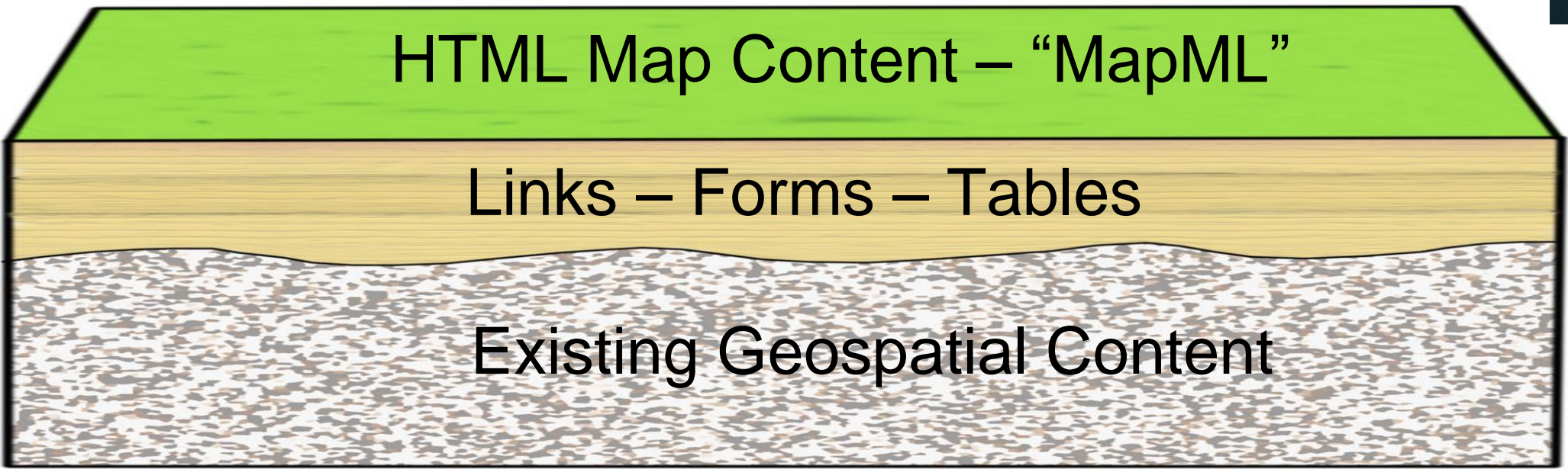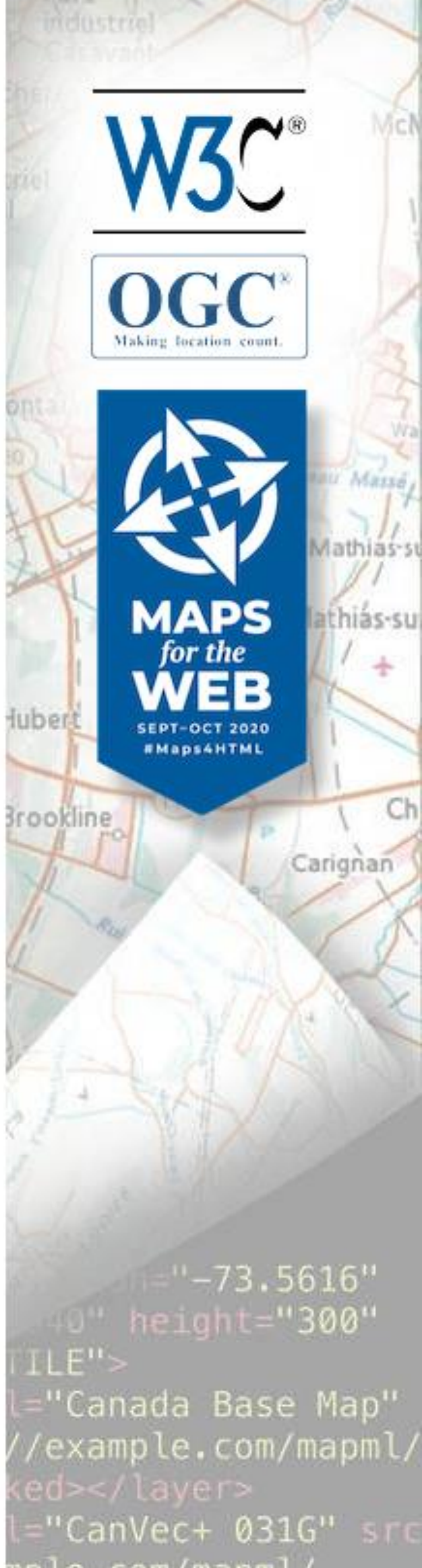

Progressive Enhancement – "JavaScript"
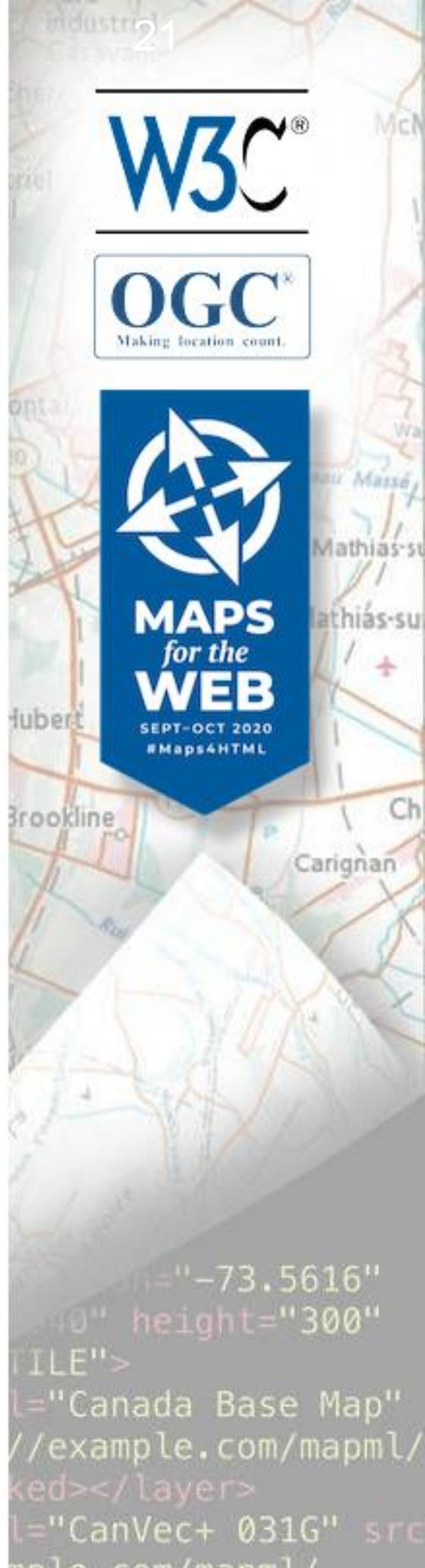

Developers

Developers

Progressive Enhancement – "CSS"

HTML Map Content – "MapML"

Links – Forms – Tables

Existing Geospatial Content

HTML Design Principles

Maps in HTML Can Happen by Working Together

THANK YOU! MERCI!

Peter.Rushforth@canada.ca

September 21st 2020
W3C/OGC Joint Workshop Series on Maps for the Web
w3.org/2020/maps/