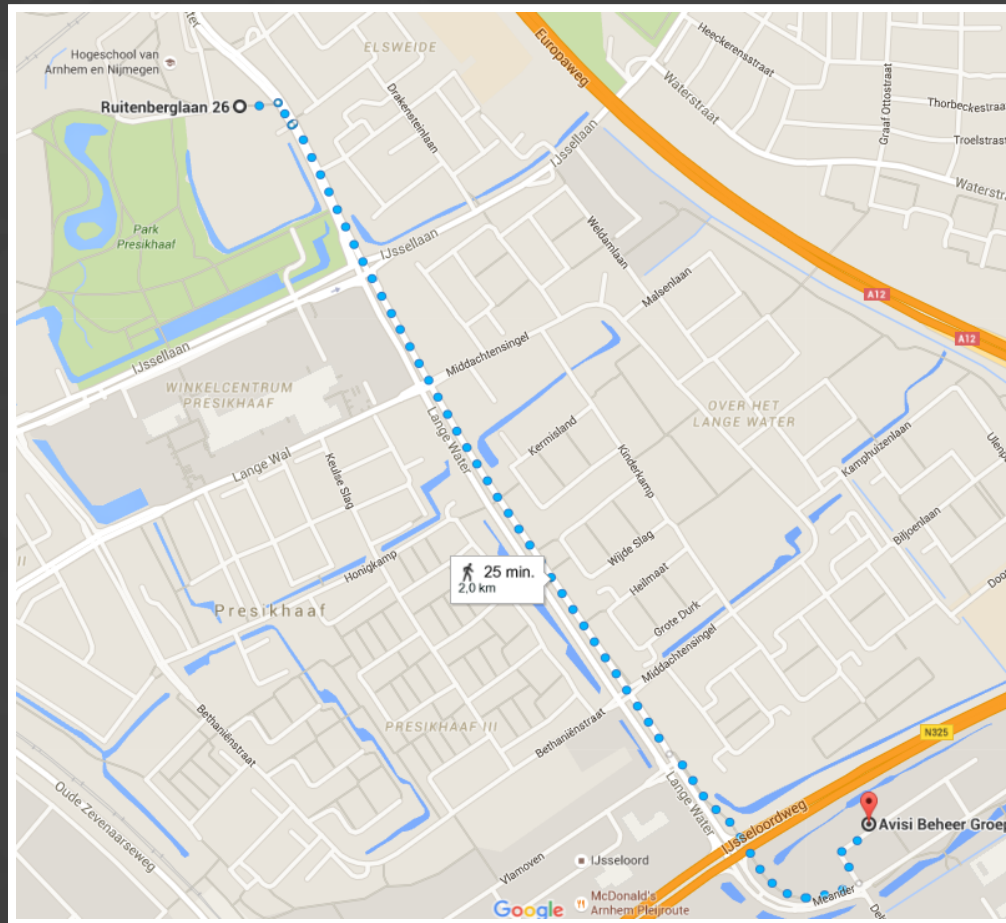


ICA PRESENTS - BROWSER PROGRAMMING

Mats Stijlaart, 2015-01-21

m.stijlaart@avisi.nl / [@stil4m](https://twitter.com/stil4m)

AVISI

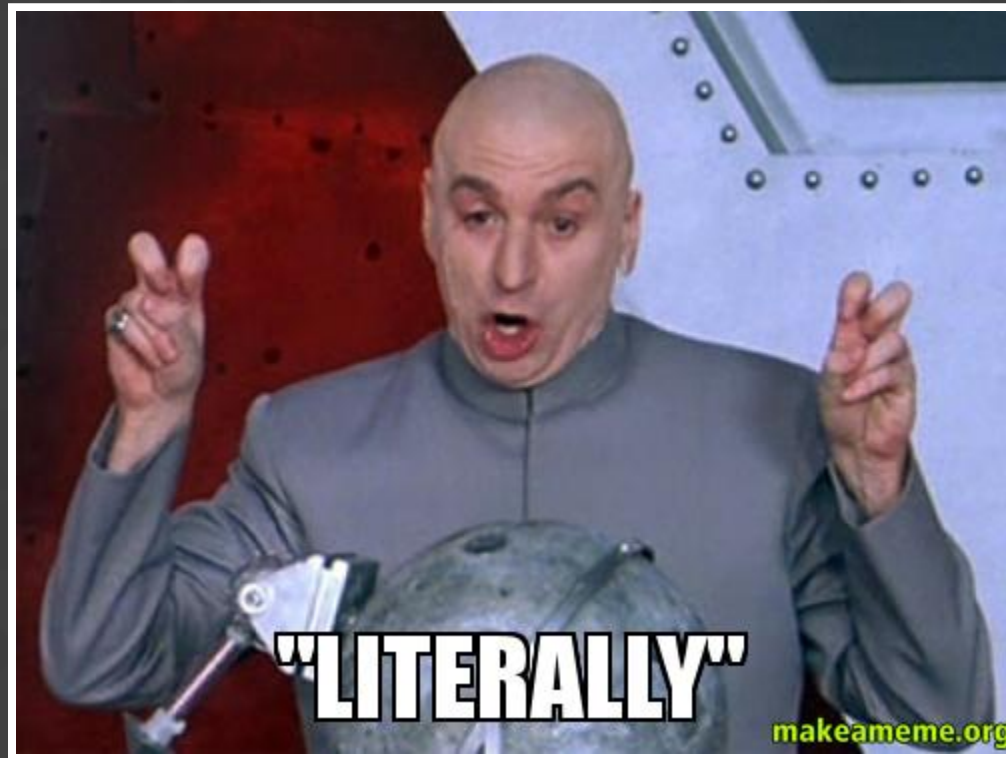


TOSTI TALKS



WHY WE DO JAVASCRIPT

IT RUNS LITERALLY EVERYWHERE



SETUP

Javascript

Java

Simple

Hard

```
console.log(1)
```

```
public class Main {  
  
    public static void main(String argv) {  
        System.out.println("1");  
    }  
}
```

TOOLING

Javascript

Java

npm, NodeJS

Maven, Ant, Gradle

LEARNING CURVE

Javascript

```
function add (x, y) {  
    return x + y;  
}
```

```
add(2, 40);
```

Java

```
public class Calculator {  
    public Integer add(Integer x, Integer y) {  
        return x + y;  
    }  
}
```

```
Calculator c = new Calculator();  
c.add(2, 40);
```


IT'S NOT THE PROMISED LAND

THE COMMUNITY LACKS QUALITY

- Too easy to publish (229,320)
- Semantic Versioning (SemVer)
- Testing

WHAT IS 'THIS'?!

```
this.x = 10;  
console.log(this.x); //prints: '10'  
  
doSomething(function() {  
    console.log(this.x); //prints: ???  
});
```

INCONSISTENT

1. `1 == "1"` `true`

2. `1 == "true"` `false`

3. `true == "1"` `true`

4. `true == "true"` `false`

5. `!true == !"true"` `true`

<https://www.destroyallsoftware.com/talks/wat>

*Javascript has a great platform. It's not
a great language.*

MAINTAINABILITY

THING TEND TO BREAK FOR NO GOOD
REASON.

WHAT THE HELL IS OPTS?

```
function calculatePi (opts) { ... }
```


WHAT THE HELL IS TRUE?

```
fetchUser(userId);  
fetchUser(userId, true);
```

*The main(maintainability) problem is the fact
that the language/community allows
you to create bad code.*

SEARCH FOR BETTER SOLUTIONS

ALTERNATIVES

- Better editors
- Conventions
- Architecture
- JSHint
- Types (*This is where JS ends*)
- Compilation
- Static Types

USE ALL THE



LANGUAGES!

memegenerator.net

TYPESCRIPT

```
function greeter(person: string) {  
    return "Hello, " + person;  
}  
  
var user = [0, 1, 2];  
  
document.body.innerHTML = greeter(user);
```

Use existing code, Interfaces

DART

```
import 'dart:html' show HttpRequest;

main() async {
  // Asynchronously get text to display.
  var lines = await getLines();

  // If result is non-null, print it.
  lines?.forEach((line) => print(line));
}
```

Java/C style, Optional typing, Synchronize JS

CLOJURESCRIPT

```
(ns hello-world.core)

(println "Hello world!")

;; ADDED
(defn foo [a b]
  (+ a b))
```

Functional, Server & Client, Reloading

ELM

```
import Graphics.Element exposing (..)
import Mouse
```

```
main : Signal Element
main =
    Signal.map show Mouse.positions
```

ML, Functional, Reactive

WHAT DOES AVISI DO?

- New technologies (ClojureScript)
- Tosti Talks
- Techday (Elm)

CONCLUSION

QUESTIONS,
DISCUSSION
OR
SNEAK PEEK WITH ELM?