



MCR 2017

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## Magento 2 Frontend Development with ClojureScript

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**ClojureScript** in Magento

for

**Fun**

and

**Profit**

# WTF?

## WTF?

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**DON'T**  
**fight the**  
**Framework!**

**Stuff needs to get done.**

**Quickly.**

**In okay quality.**

**I don't want to fight the  
framework.**

**But sometimes it feels like it's fighting me.**

As an eCommerce developer,  
I want to build sites with Magento,  
without being frustrated  
by tangled UI Components,  
so I can deliver work on time.

I would love to love all UI Components.

*But it hasn't happened for me.*

The next best thing:

*Not use them whenever working with them  
takes an unreasonable amount of time.*



*I need to find a tool that allows me to*

- use Magento as much as possible
- selectively rebuild the parts that I do not want
- make the choice on a case-by-case basis

## *Concrete options:*

- JavaScript
- TypeScript
- ScalaJS
- Elm
- PureScript
- ClojureScript

# What is ClojureScript?

# LISP

(List + Processor)

# Clojure

- Hosted Language
  - JVM
  - JavaScript (Browser & Node)
  - CLR

(Clojure, ClojureScript, ClojureCLR)

# Clojure

- Embraces the host runtime -> interop

# Clojure

*One thing which seems important at first  
turns out to be a non-issue:*

Parenthesis

# PHP

```
print("Magento")
```

# Clojure

```
(print "Magento")
```



*But JS haz Objects...!*

# JavaScript

```
"Magento".toLowerCase()  
// => "magento"
```

# ClojureScript

```
(.toLowerCase "Magento")  
;; => "magento"
```

# JS

```
console.log("debug");
```

# ClojureScript

```
(.log js/console "debug")
```

;; alternative syntactic JS interop sugar

```
(js/console.log "debug")
```

# CLJS in Magento

- In Magento module:  
compiled to `view/frontend/web/js/`
- In Magento base dir:  
compiled to `pub/js/`
- The `<script src="...">` tag  
needs to precede `requirejs`

# Demo

# Clojure

- Quick feedback loop
- Lovely developer experience

# Clojure

- Extremely stable
- 10 years of growth

# Clojure

— More Clojure devs than Clojure jobs



So many good ideas in ClojureScript...

I want talk about all of them!

But - that would take days...

*But I can't just leave them out!*

# Wow, much good, such benefits!

- Immutability by default
- Immutable persistent data structures
- Versatile data structures: Maps, Sets, Lists and Vectors
- Large consistent core library
- Google Closure Compiler Inlining and Dead Code Elimination
- Dead Code Elimination also for external node modules
- Closure Spec
- core.async a.k.a. CSP a.k.a. go blocks
- React Native
- GCC module splitting and cross module code motion
- Direct access to the giant JavaScript library ecosystem
- Great testing story
- Modern frontend architecture
- Documentation and books
- Podcasts, YouTube Channels, International Conferences
- User groups and workshops
- Very cool people and projects to be inspired by
- And much more...

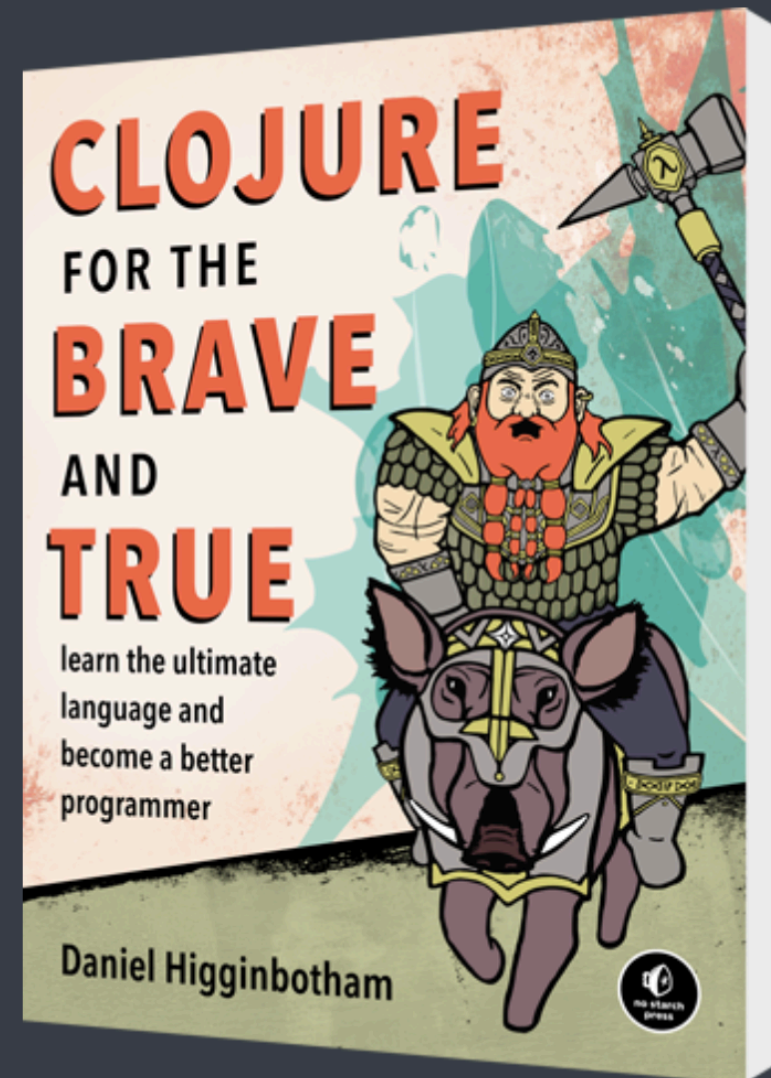
# Want to dig in?

## Clojure for the Brave and True

### Clojure for the Brave and True

Do you want to learn Clojure, the most powerful and fun programming language on the planet? Do you want to unravel the mysteries of Lisp and functional programming? Do you want to punch hobbits and track down glittery vampires? *Then you need to read this book!*

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# Want to dig in?



Manchester Lambda Lounge (@LambdaMCR) - 20. Nov.



Virtual Clojure Meetup (on meetup.com)



ClojureBridge (@ClojureBridge) - 17.-18. Nov. London

# Thank you!

Thanks to @lfolco and @matthewhaworth for their feedback!

*Questions, Thoughts, Ideas?*

Demo Source: <https://github.com/Vinai/magento-cljs-giftlist>





# MAGE2 .TV

MAGENTO 2 DEVELOPER SCREENCASTS