

# REPL-DRIVEN DEVELOPMENT

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# CLOJURE'S SUPERPOWER

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WORLD SINGLES NETWORK



# WHO AM I?

- World Singles Networks
  - 40+ online dating sites
  - Powered by 105k lines of Clojure
  - In production since Clojure 1.3
- Open Source
  - next.jdbc, clojure.java.jdbc
  - HoneySQL
  - clj-new, depstar
  - Expectations, Readme
- Senior Software Architect
  - World Singles Networks
  - Broadchoice
  - Macromedia
- Journey to Clojure
  - Assembler, COBOL, C, C++, Java, CFML(!), Groovy, Scala
  - But lots of Lisp/FP @ uni in the '80s!

# REPL-DRIVEN DEVELOPMENT

- What do we mean by this?
  - Lots of languages have a REPL, right?
  - All Clojure developers already use the REPL, right?
  - "I am baffled when people type things into the REPL"
    - Stuart Halloway - REPL-Driven Development (Chicago Clojure, 2017)

# SOME CAVEATS ABOUT THIS TALK

- I'll be live coding so we can expect things to go wrong...
- I use the latest Clojure CLI tools (1.10.1.727) and my dot-clojure repo/aliases
- I use ~~Atom + Chlorine~~ VS Code + Clover + Socket REPL
- All of this is possible with lein, nREPL, emacs/vi/cursive

# SOME CAVEATS ABOUT THIS TALK

- I use tools.deps.alpha's add-lib3 branch to add dependencies to a running app
  - With Leiningen, you can use Pomegranate to do the same thing
- I use Reveal to supplement my editor/REPL for data visualization etc
  - It's optional – but there's also Portal (browser-based) and REBL (Cognitect)
- I want this to be interactive – interrupt me and ask as many questions as you want!

# WHAT WILL WE BUILD?

- We'll build a small web application from scratch
- We'll start by creating a brand new, minimal project (app)
- We'll start a REPL
- We'll add code and dependencies and tests and see how far we can get in an hour!

**TIME TO START THE REPL**

# WHAT DID WE LEARN?

- Don't type into the REPL – use "Rich Comment Forms" in your code
- Being effective with a REPL requires...
  - no magic
  - no special refresh/restart tooling
  - only a few commands/hotkeys
- Be like Rich Hickey and Stuart Halloway!



# LINKS AND RESOURCES

- My dot-clojure & vscode-clover-setup (along with clj-new etc):
  - <https://github.com/seancorfield>
- Clojure CLI
  - Basic Documentation: [https://clojure.org/guides/deps\\_and\\_cli](https://clojure.org/guides/deps_and_cli)
  - Reference Documentation: [https://clojure.org/reference/deps\\_and\\_cli](https://clojure.org/reference/deps_and_cli)
  - Releases: <https://clojure.org/releases/tools>
  - Community Tools: <https://github.com/clojure/tools.deps.alpha/wiki/Tools>

# LINKS AND RESOURCES

- REPL tutorial on clojure.org:
  - [https://clojure.org/guides/repl/enhancing\\_your\\_repl\\_workflow](https://clojure.org/guides/repl/enhancing_your_repl_workflow)
  - In particular the **Writing REPL-Friendly Programs** section near the end!
- Stuart Halloway - RDD talk - <https://vimeo.com/223309989>
- Eric Normand - RDD course (absolutely worth a month's subscription!):
  - <https://purelyfunctional.tv/courses/repl-driven-development-in-clojure/>

# CONTACTING ME

- I'm **seancorfield** everywhere: github, slack, twitter, zulip... even facebook (non-tech!)
- I blog (occasionally) at An Architect's View - <https://corfield.org>
  - Powered by Cryogen which is powered by Clojure!