Clojure programming language & it's ecosystem

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What is Clojure?

- LISP

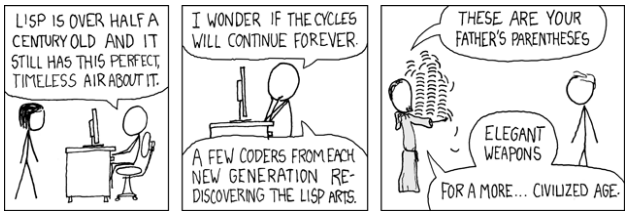

Figure 1: Lisp Cycles, https://xkcd.com/297/

- Rich Hickey

Figure 2: Rich Hickey at the first Clojure Conj in 2010, https://creativecommons.org/licenses/by-sa/2.0/

What is LISP?

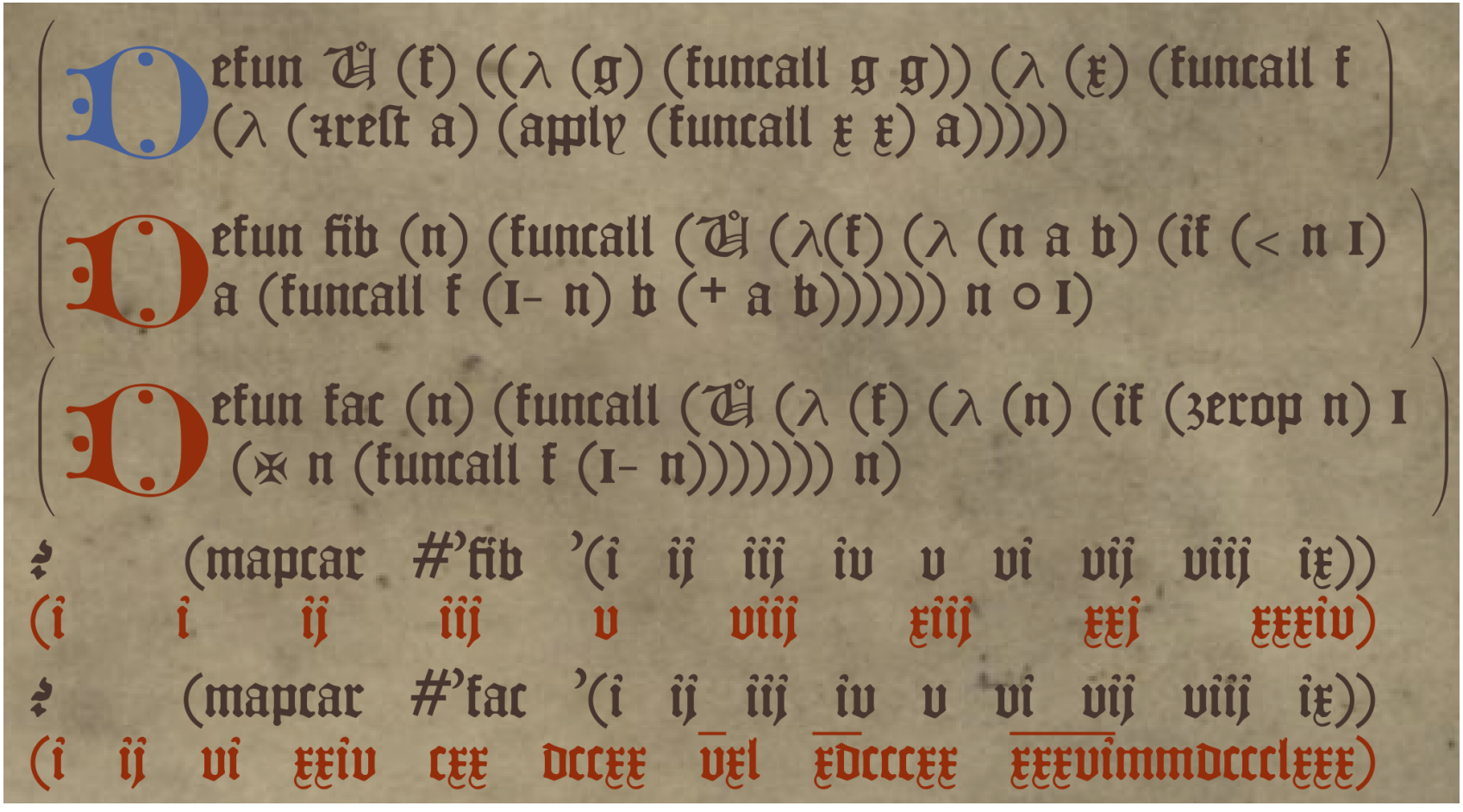

Figure 3: Y Combinator Codex by emacsomancer.

What is LISP?

- LISt Processing language
- 2nd oldest High-Level Language after FORTRAN
- 1958 - John McCarthy

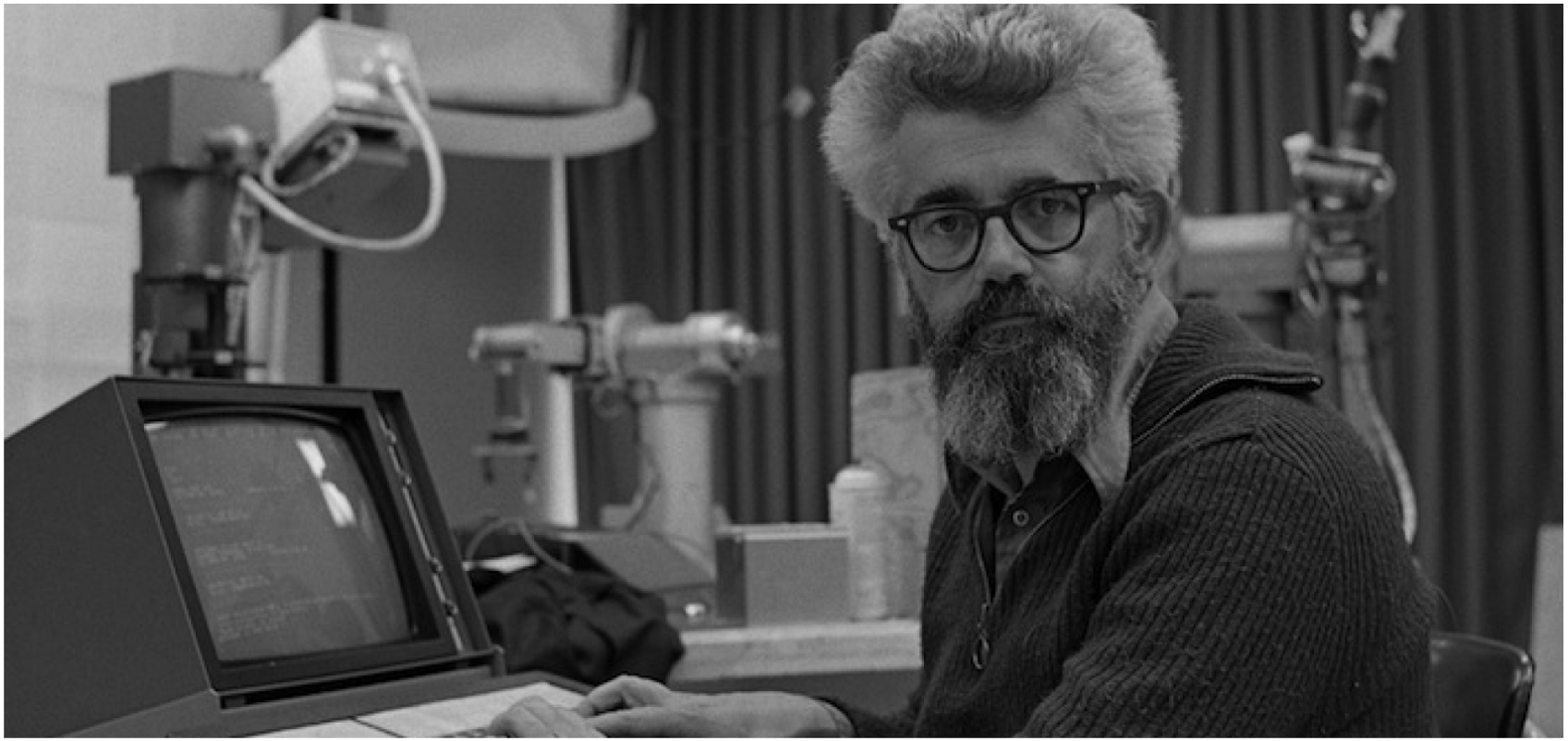

Figure 4: John McCarthy at work in his artificial intelligence laboratory at Stanford

Why Clojure?

- Designed with simplicity
- Functional Programming
- Data Oriented

Figure 5: Code? Data? Code? Data?

Why Clojure?

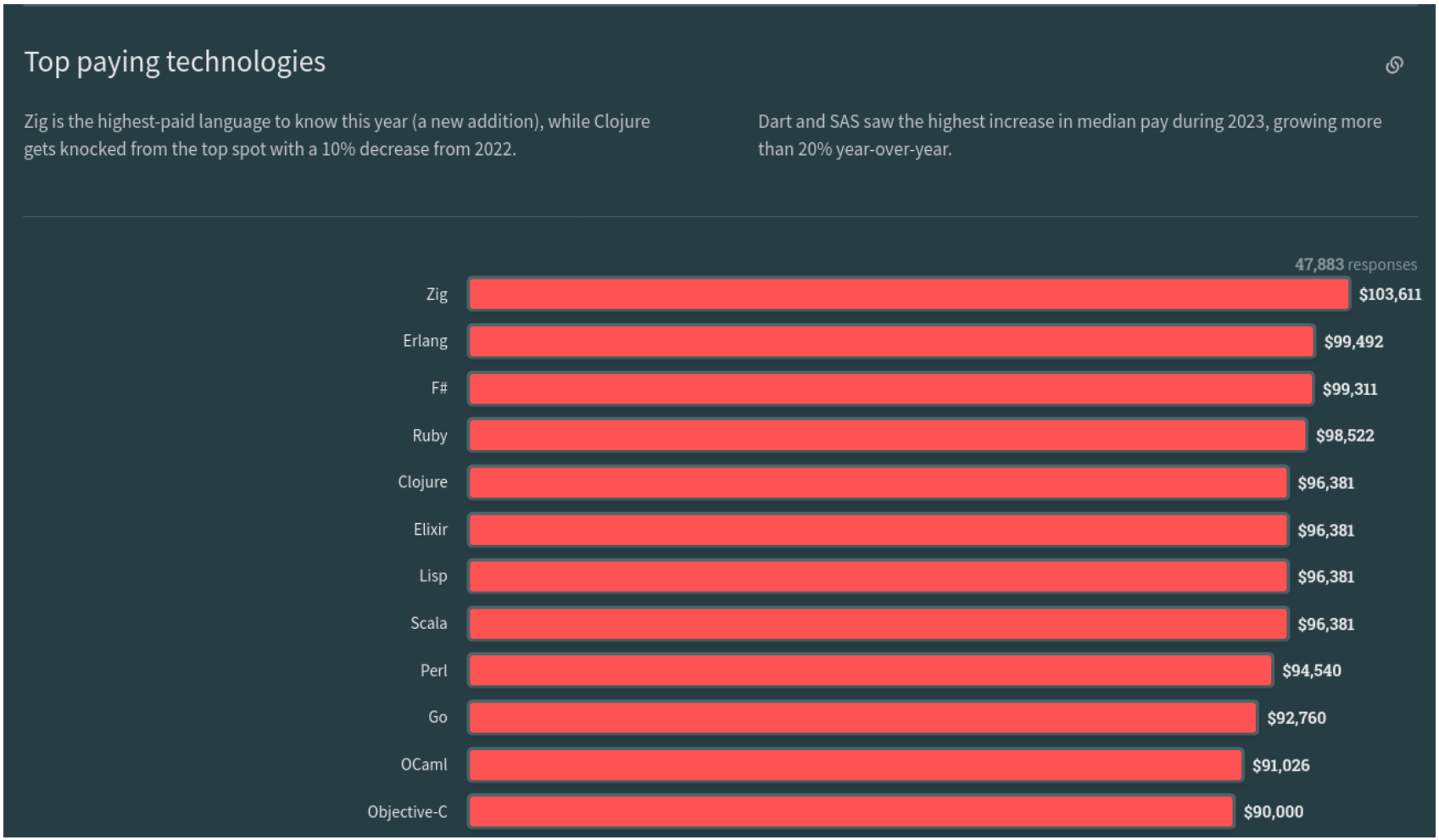

Figure 6: 2023 Developer Survey, Top paying technologies

Source: https://survey.stackoverflow.co/2023/#section-top-

Why Clojure?

Figure 7: Stack Overflow Developer Survey 2022, Most loved, dreaded, and wanted

Functional Programming

- Immutability
- Referential transparency
- Easy to think about systems
- Parallel and concurrent programming