

Simple made easy

references

- "simplicity is prerequisite for reliability" Edsger W Dijkstra
- Alan Perlis "lisp programmers know the value of everything but the cost of nothing"
- Leonardo Da Vinci "simplicity is the ultimate sophistication"
- Constantin Brancusi "simplicity is not an objective..."

easy

- near, at hand
- familiar
- near our capabilities
- relative : near to what

change

- require analysis and decisions
- what impacts ?
- where it has to be made ?

easy yet complex

- many complex things are familiar
- what matters is complexity yield

how to make things easy

- bring to hand by installing
- become familiar
- problems are bigger than our brains

guidelines

- composing
- state is never simple
- closure and haskell refs compose value and time
 - allow to extract a simple value
 - provide abstraction of time
- objects are complex
 - state
 - value
 - identity
 - refs
- final values
- named args
- sets v.s. lists
- JSON v.s. XML
- order
- call chain : queues
- functions : stateless
- simplify the pb space before you start
- maps

Rich Hickey

- creator of clojure
- second day keynote

simple

- one role
- one task
- one concept
- one dimension
- but not
 - one instance
 - one operation
- objective
 - require vigilance sensibility and care
- is a choice
 - don't over estimate the tools

limits

- we can only make reliable things we can understand
- we can consider few things at a time

debugging

- ability to reason about the program

benefits

- ease of
 - understanding
 - change
 - debug
- flexibility
 - policy
 - location

parenthesis are hard

- not at hand
- nor familiar
- are they simple
 - overloaded for calls and grouping
 - adding data structure for grouping