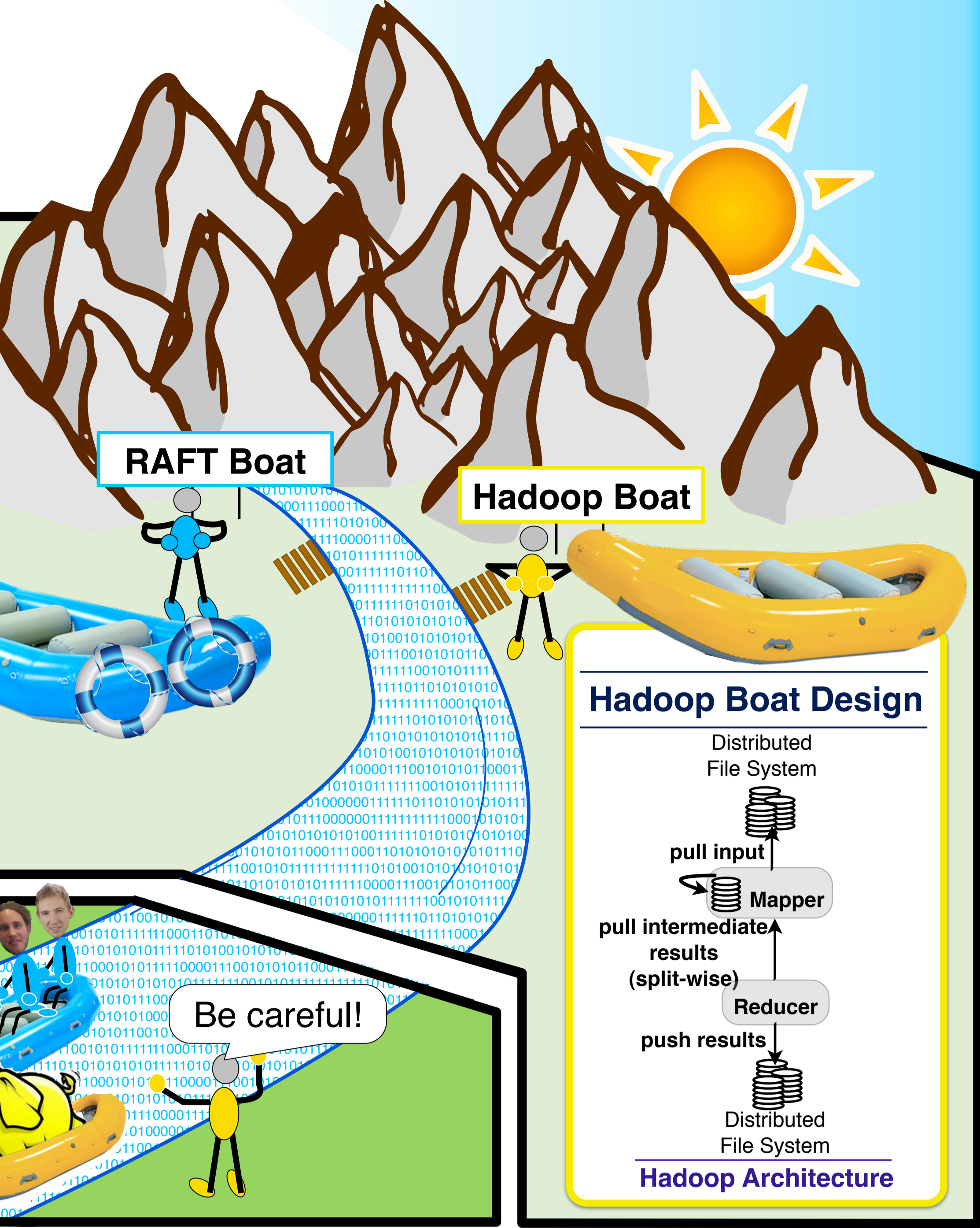
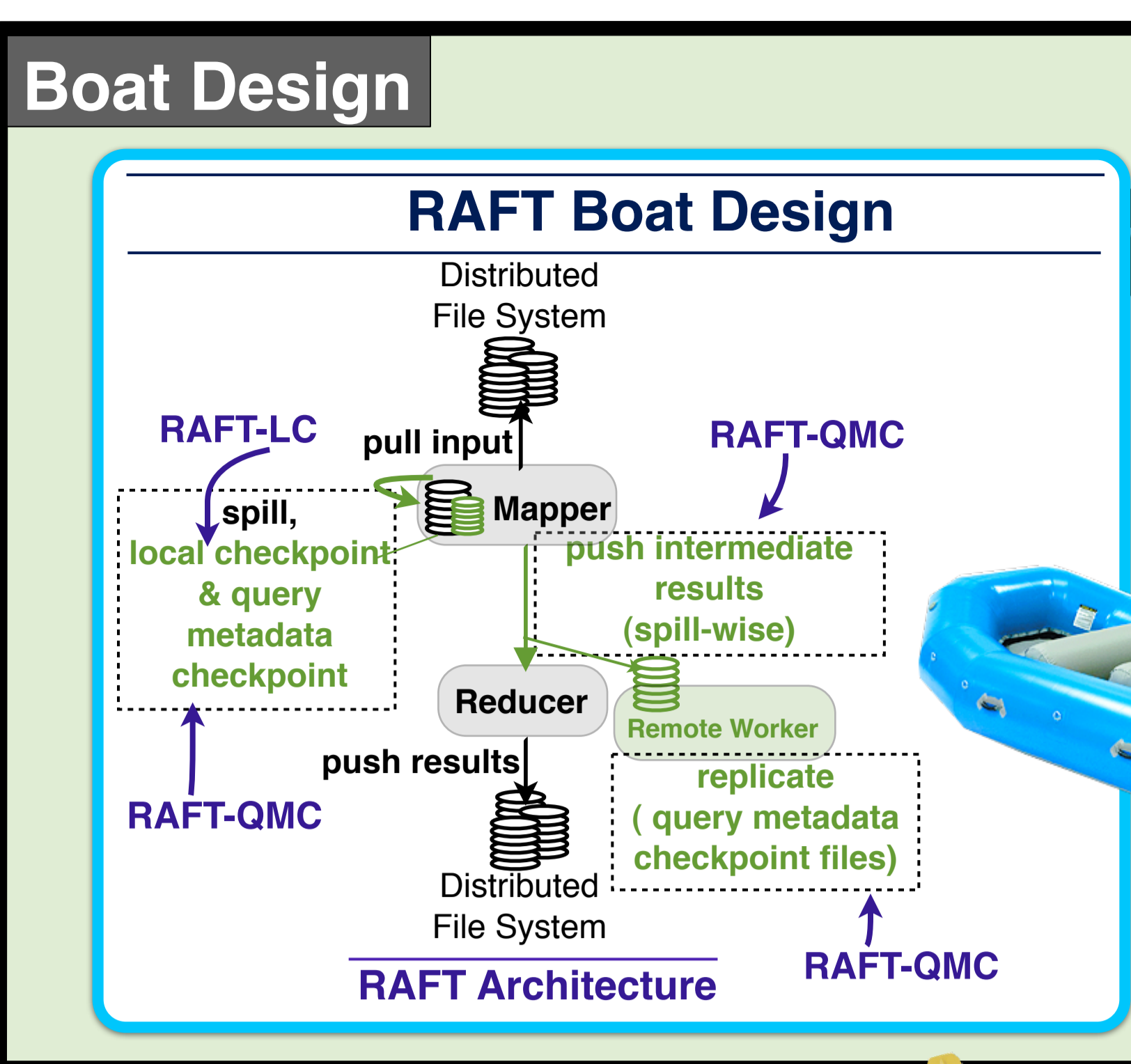


# Saarland RAFT Boats

**Designers:**  
 Jorge Quiané, Christoph Pinkel, Jörg Schad, Jens Dittrich

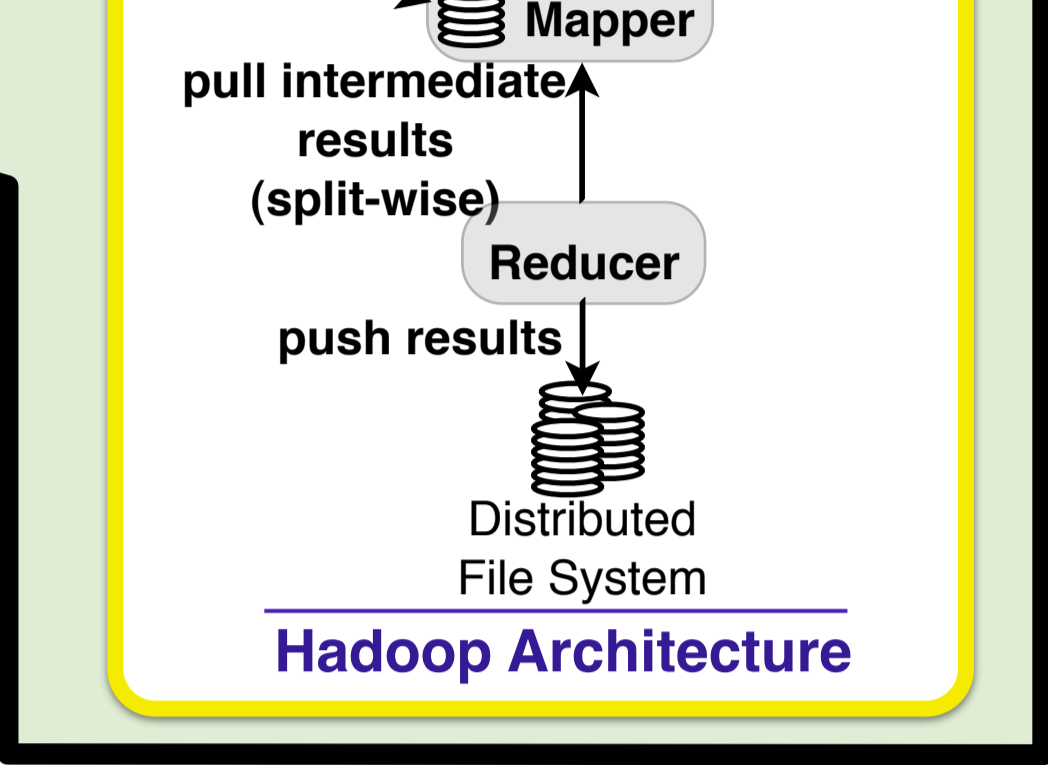
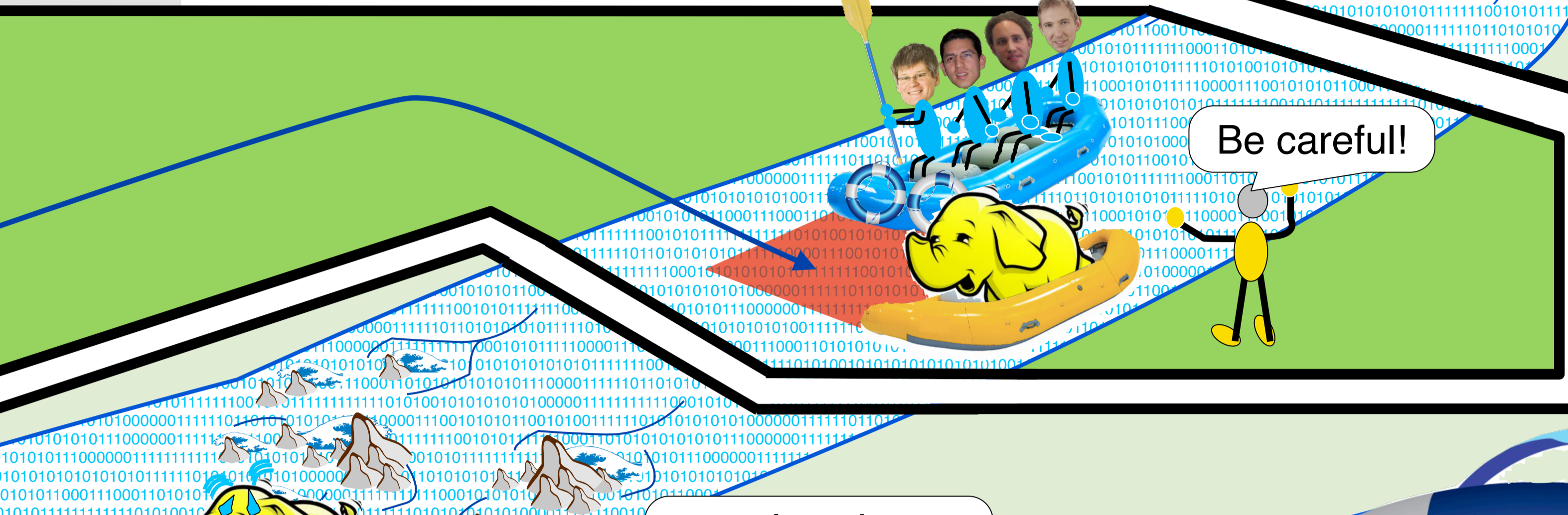
Interested in RAFTing through dangerous rivers faster?

Then try out our RAFT boat design!



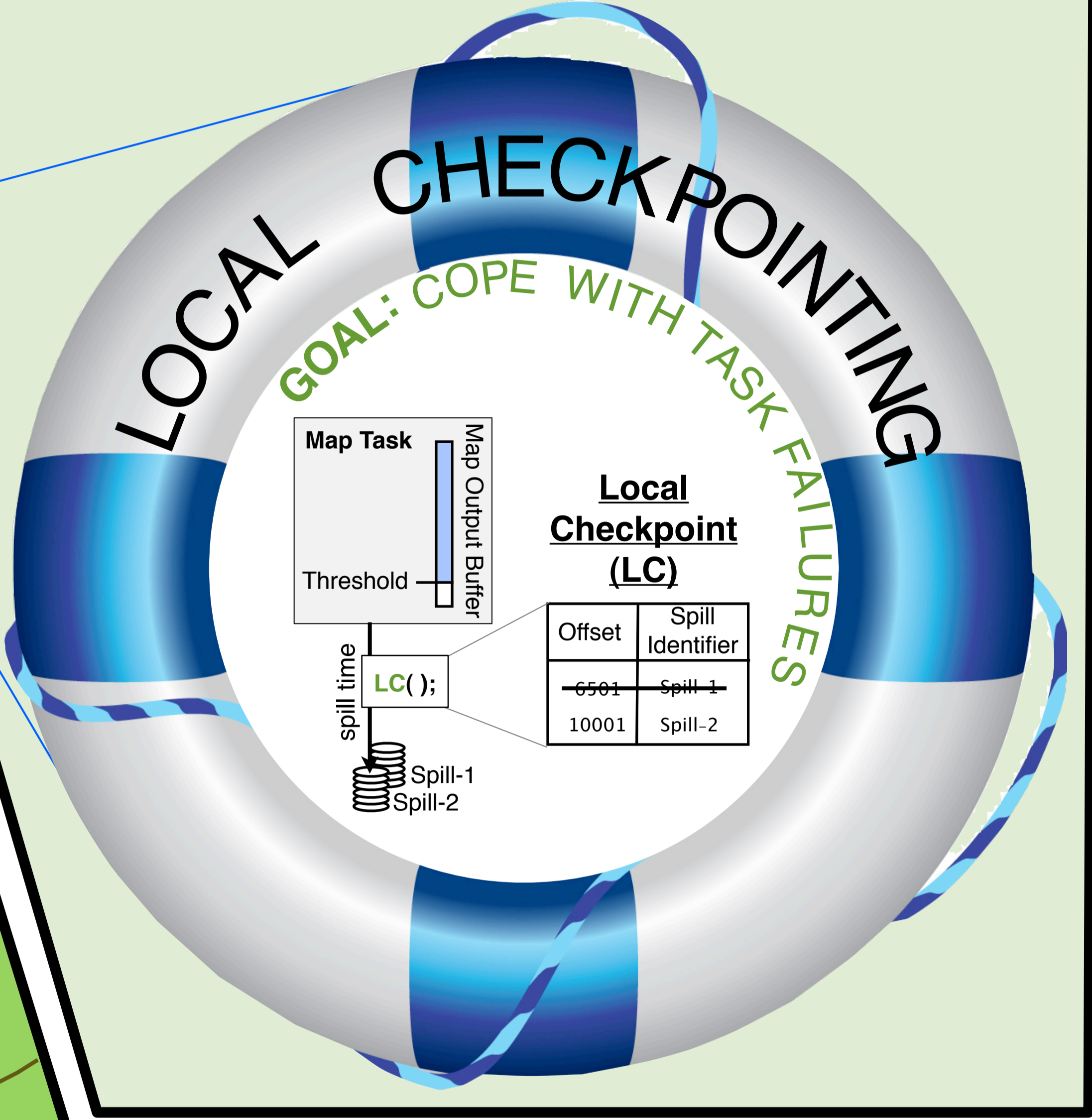
### Cheap Insurance

Protection for only 7% overhead under no failures!



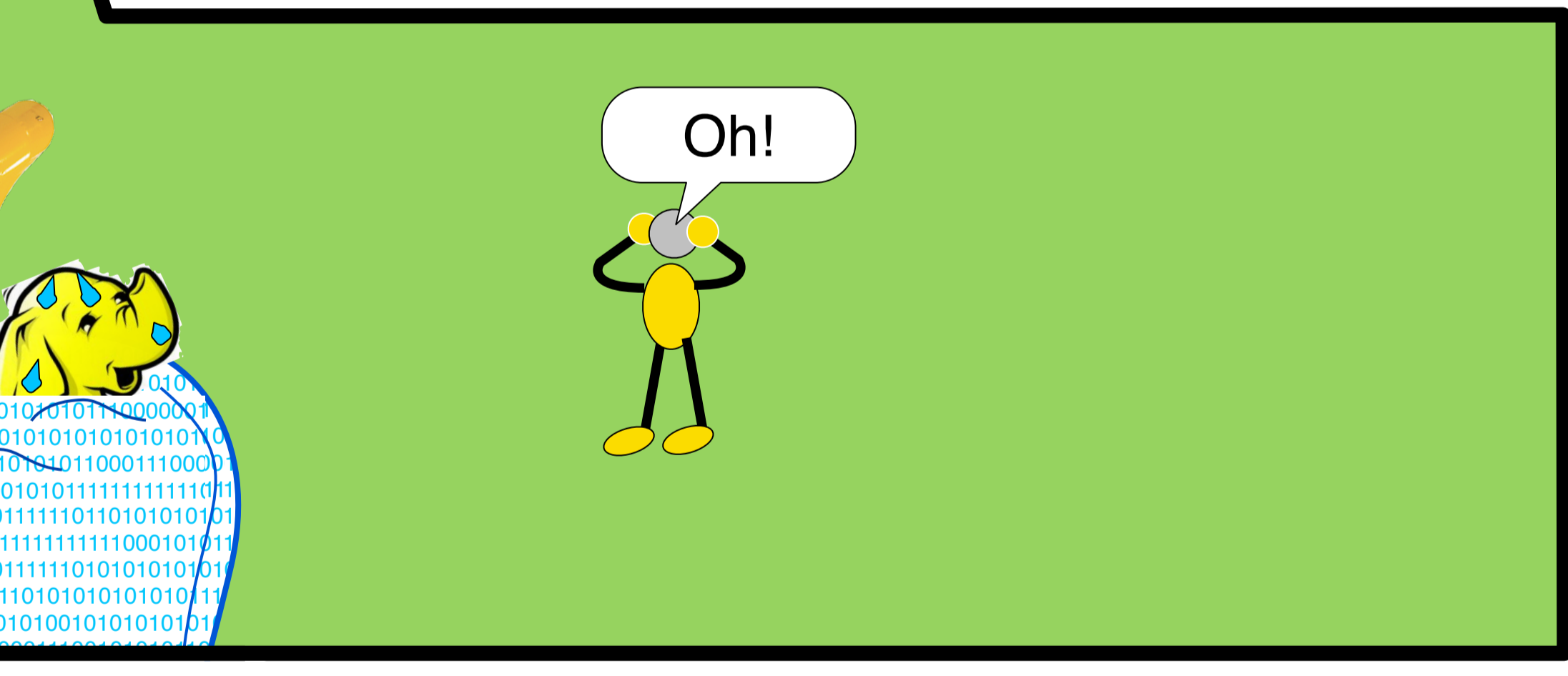
### Rapids? No Problem!

Local Checkpointing



### Waterfalls? Again, No Problem!

Query Metadata Checkpointing



Satisfied?

### Want more? Hadoop++ Project

**Goal:** match PDBMS performance  
**Issue:** performance gap inherent to implementation  
**Idea:** improve performance with minor changes to Hadoop

Visit our web site:  
**Hadoop++ Project:** <http://infosys.cs.uni-saarland.de/hadoop++.php>

- J. Dittrich, J. Quiané, A. Jindal, Y. Kargin, V. Setty, J. Schad. **Hadoop++: Making a Yellow Elephant Run Like a Cheetah (Without It Even Noticing).** VLDB/PVLDB 2010, Singapore.
- J. Schad. **Flying Yellow Elephant: Predictable and Efficient MapReduce in the Cloud.** PhD Workshop VLDB 2010.
- J. Quiané, C. Pinkel, J. Schad, J. Dittrich. **RAFTing MapReduce: Fast Recovery on the Raft.** ICDE 2011.

### The RAFT boat was designed as part of the Hadoop++ Project

### Tour Average time [sec]

Quarter	Hadoop boat [sec]	RAFT boat [sec]
Q1	835	762
Q2	19.5k	15.2k
Q3	17k	13.1k

You see, RAFT boats are faster under failures, still negligible insurance cost!

Other exciting tours