Life After the Stonebreaker* Stores

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HPTS 2011 // October 24th, 2011
C-Store
http://db.csail.mit.edu/projects/cstore
AMD Chips Overclocked to 8.43Ghz
L3 Speed > DRAM Speed
Memristors

Non-volatile solid storage

1971 Proposed at Berkeley.
2008 Discovered at HP Labs.
2013 Coming to market.

Stacked multi-PB per 1 cm²
Memristors

Dynamically switch into storage vs. compute areas.

Execute stored procedures directly on gates using Material Implication Logic

Bertrand Russell
Why this matters.

Single-node elasticity.
Multi-partition locality.
Self-optimizing stored procedures.