Data Conflict Resolution Using Trust Mappings

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7. Experiments on large network data

Calculating pos / cert for fixed key
Web data set on the web programming language
- RK: Resolution algorithm
- N: Neural network

Network 1: "Oscillators"

Network 2: "Web link data"
Web data set on 2176 domain names, Asking:
- Sample links with increasing ratio
- Include both nodes of same type

Network 3: "Worst case" O(n²)

8. Three semantics for negative beliefs

Agnostic
Eclectic
Skeptical

9. Takeaways: automatic conflict resolution

Problem
- Given explicit beliefs & trust mappings, how to assign consistent value assignment to users?

Our solution
- Stable solutions with possible/certain value semantics
- PTIME algorithm O(n³) worst case, O(n) experiments
- Several extensions
  - negative beliefs: 3 semantics, two hard, one O(n³)
  - bulk inserts
  - agreement checking
- consensus value
- lineage computation

Slides soon available on our project page:
http://db.cs.washington.edu/beliefDB