

Computational Fact Checking from Knowledge Networks
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Problem: Too much of the library of Babel is available to us via the Internet. We need to make rapid *informed* decisions.

What do we do?

1. Develop approaches to computationally check facts
2. Test & Validate
3. Scale
4. ???
5. Profit!

The approach

Knowledge Graphs - represents all factual relationships between entities mentioned in statements of knowledge repo.

Statements of Fact (subject-predicate-object triples)

“Given a new statement, we expect it to be true if it exists as an edge of the graph, or if there is a short path linking its subject to its object within the graph. If however, the statement is untrue, there should be neither edges or short paths that connect subject/object.”

Weighted paths - Distinct paths between same subject/object provide different factual support.

What is truth?

How to validate?

Annotated corpus

- Remove statements present in the WKG

Results?

- Truth values positively correlated with average ratings by human evaluators
- Consistently higher support for true statements than false ones

Questions

1. Say a news aggregator (e.g. Google News) implements this as a scoring system and favors high scores. Who else do you think will most quickly adopt this technology? (Hint: Who stands to gain the most?)
2. Is this approach biased toward mainstream information? What about radical but true (e.g. revelations from whistleblowers, secrets, scandals)?
3. How could an adversary attack this system?