



# Knowledge Evolution, Inc.

## Capabilities relevant to IARPA's Metaphor Program

Dr. Sidney C. Bailin, President

1221 Connecticut Ave. NW, STE 3B  
Washington DC 20036  
[sbailin@kevol.com](mailto:sbailin@kevol.com)



# A Small Business

- Develop technology to identify and overcome barriers to shared knowledge
- Key technologies:
  - Ontology negotiation
  - Learning and Inquiry Based Reuse Adoption (LIBRA)
  - Narrative structures
- Expertise in semantic technology, automated reasoning, software development



# Ontology Negotiation

- Algorithms for **mediating between disparate views** of the world
- Emphasis on **conversational patterns**
- Emphasis on **questions** rather than answers
  - **Explore** ontology difference rather than *resolve* them
  - Ambiguity isn't bad!



# LIBRA

- Learning and Inquiry-Based Reuse Adoption
- Ontology negotiation for humans
- Tools for discovering the **beliefs underlying choices**
- Tools for understanding **organizational behavior patterns**



# Narrative Structures

- Stories are highly structured forms of communication
  - Not just blobs of text with human characters grafted on
- Key concepts:
  - World (context)
  - Forward movement (threat/promise resolution)
  - Shape (controlled release of information)
- See S. Bailin, “Diagrams and Design Stories”
  - *Machine Graphics and Vision, Vol. 12, No. 1, 2003.*