Problem-Solving as Argumentation

Science is observation, argumentation, and explanation.

Interface

Expert

Modeling, Reasoning, and
Simulation Development

Knowledge base and
Semantic Net

Computations
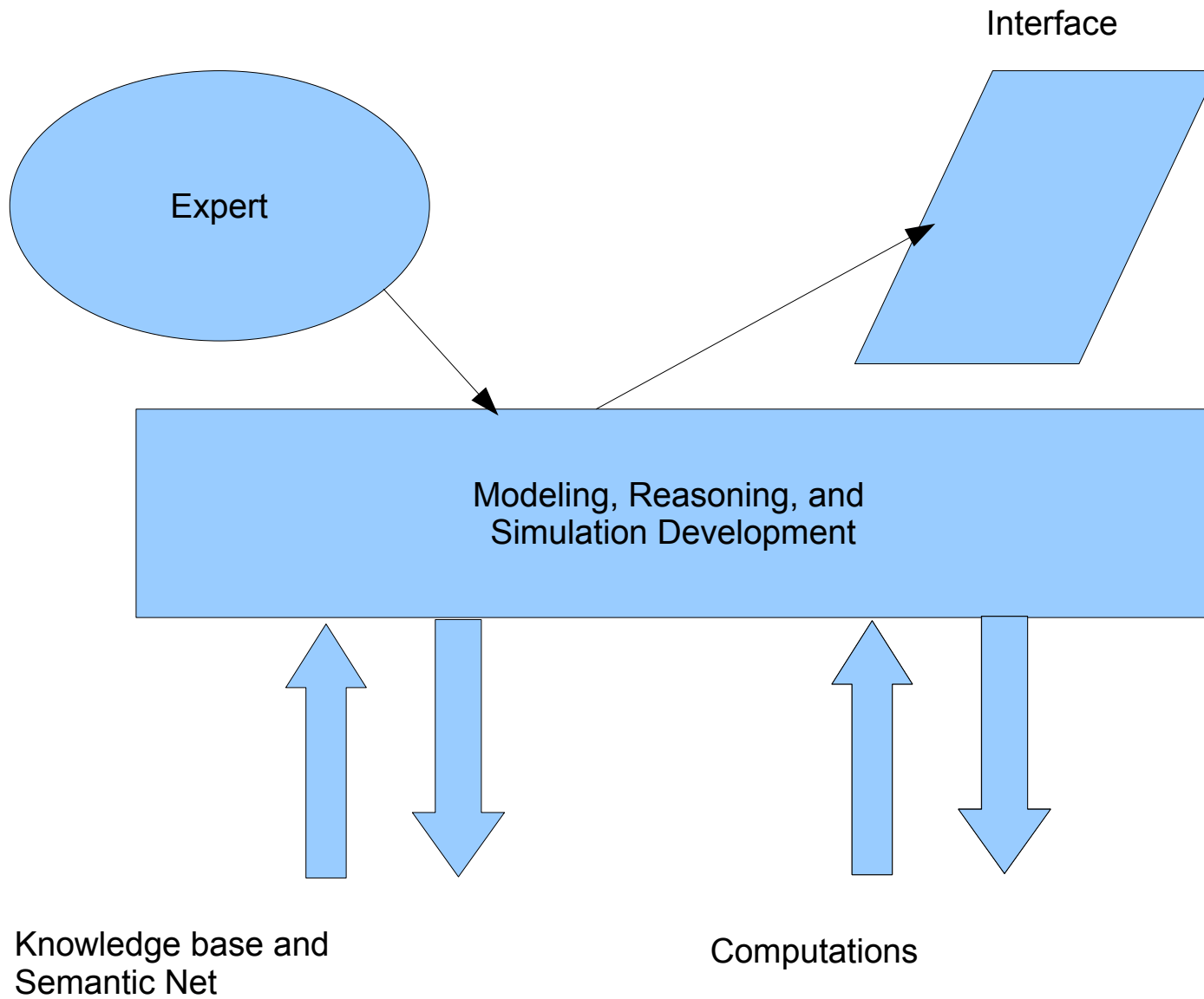
Building Models

- Translation from BoK, a hodge-podge of images, mathematics, natural language.

- Develop logical framework that captures problems and allows questions to be formulated.

- Find and verify/validate solutions. This takes the form of an argument: claim, evidence, etc.

- Explain the solutions in terms of the original material.

Our Research

- Our Goal: Bring your problem in Monday at 8 and you'll have a PSE by Friday at 5.

  - Viz input is an undergraduate project.

  - Semantic Net is an Honors project for two Honors students. Could be MS/PhD level. Interdisciplinary.

  - Symbolic manipulation module is ongoing, CAS partial available. MS/PhD. Interdisciplinary.

  - Reasoning module is new, using argumentation and changes to knowledge engineering. PhD level. Interdisciplinary.

We're looking for collaborators on the problem side