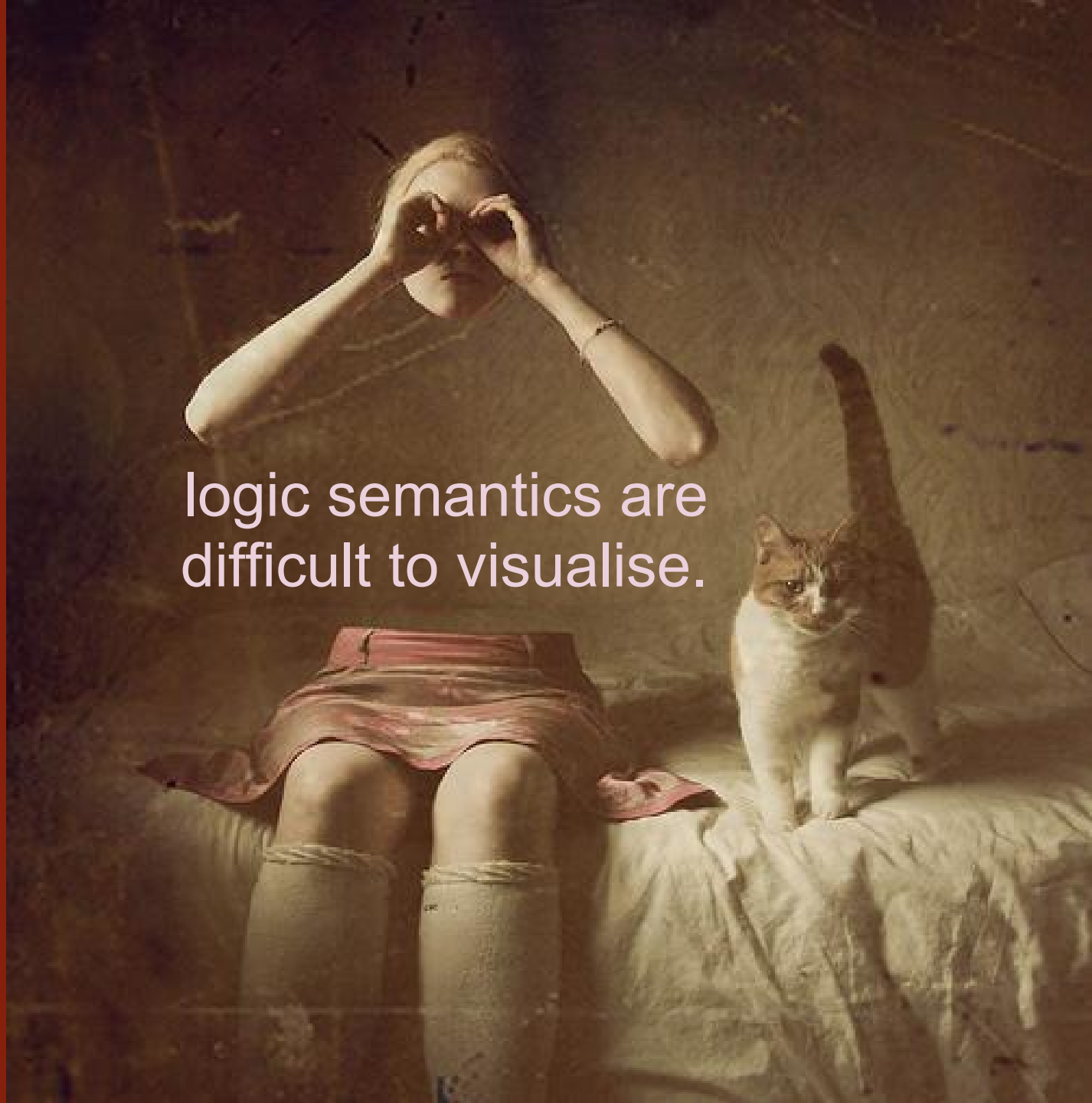


LOST

LOgic Semantics Tutor

**The
problem:**

logic semantics are
difficult to visualise.



The solution:

an interactive and intuitive interface.



LOST can:

- Display a structure
- Display a signature
- Evaluate sentences within the structure
- Allow editing of the structure and signature
- Guide and engage the user

Some examples

- It is Monday and it is sunny.
 $\text{Monday} \wedge \text{sunny}$
- It is Monday if and only if everyone is sad.
 $\text{Monday} \leftrightarrow \forall x \text{ sad}(x)$

Some examples

- At least two different students use LOST.
$$\exists x \exists y (\text{student}(x) \wedge \text{student}(y) \wedge \text{uses}(x, \text{LOST}) \wedge \text{uses}(y, \text{LOST}) \wedge \neg x=y)$$
- Everyone who uses LOST is happy.
$$\forall x (\text{uses}(x, \text{LOST}) \rightarrow \text{happy}(x))$$

Implementation

Language: **Java 7**

Tools: **Antlr 4**

Toolkits: **Swing**

Environment: **NetBeans 7.3**

Version control: **Git**

A photograph of a classroom scene from behind several students. They are all raising their hands, indicating they want to answer a question or participate. The students are wearing light blue, red, orange, and green shirts. In the background, a large chalkboard is filled with faint, handwritten mathematical equations and diagrams. The word "LOST?" is superimposed in the center of the image in a white, sans-serif font.

LOST?