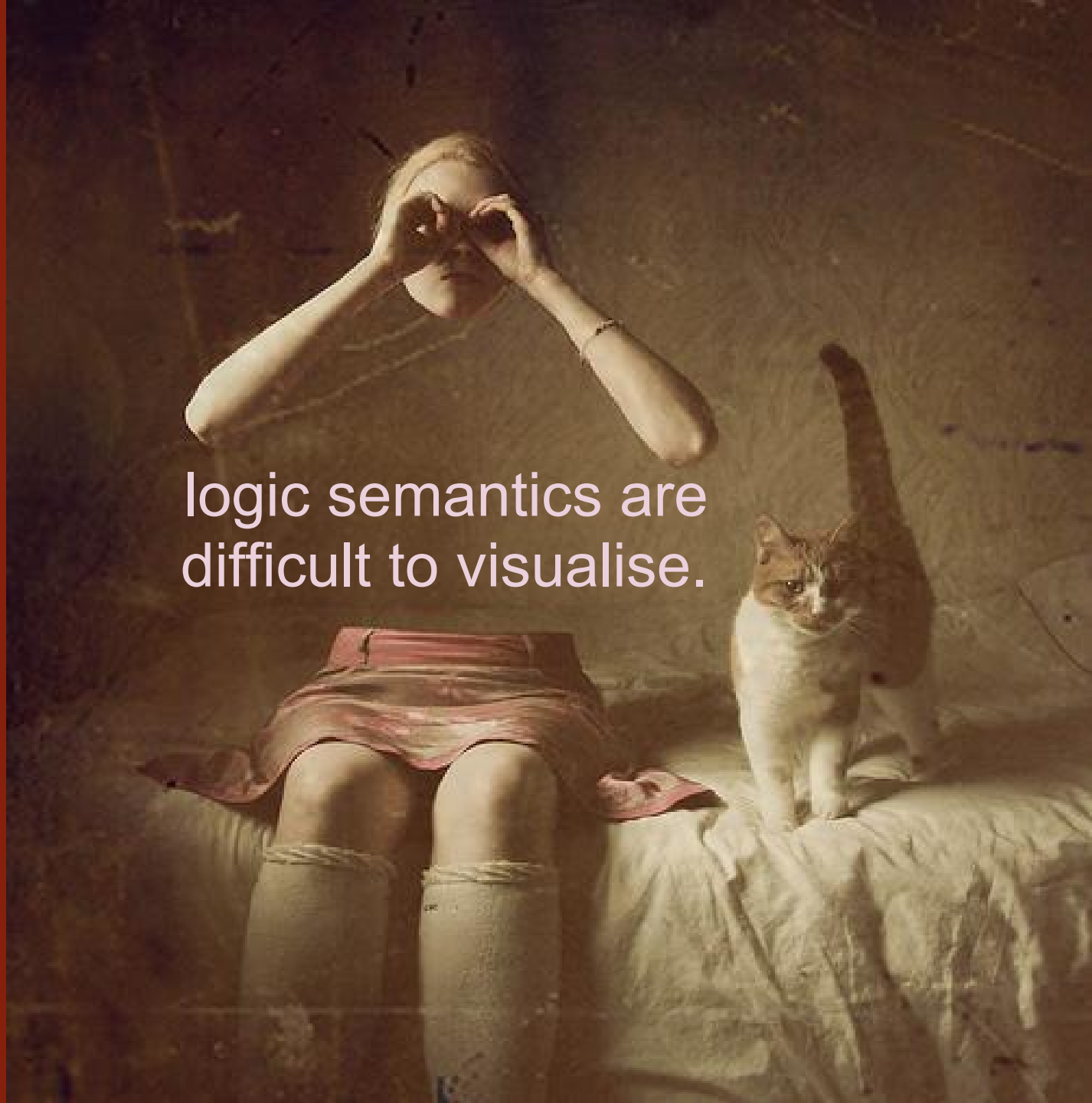# LOST

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.
  Monday $\land$ sunny

- It is Monday if and only if everyone is sad.
  Monday $\leftrightarrow$ $\forall$x sad(x)

Some examples

- At least two different students use LOST.
  $\exists x \exists y$ (student(x) $\wedge$ student(y) $\wedge$
        uses(x, LOST) $\wedge$ uses(y, LOST) $\wedge$
      $\neg$x=y)

- Everyone who uses LOST is happy.
  $\forall x$ (uses(x,LOST) $\rightarrow$ happy(x))

Implementation

Language: **Java 7**

Tools: **Antlr 4**

Toolkits: **Swing**

Environment: **NetBeans 7.3**

Version control: **Git**

LOST?