

An Adaptive Multi-Agent System for Architectural Sketch Interpretation

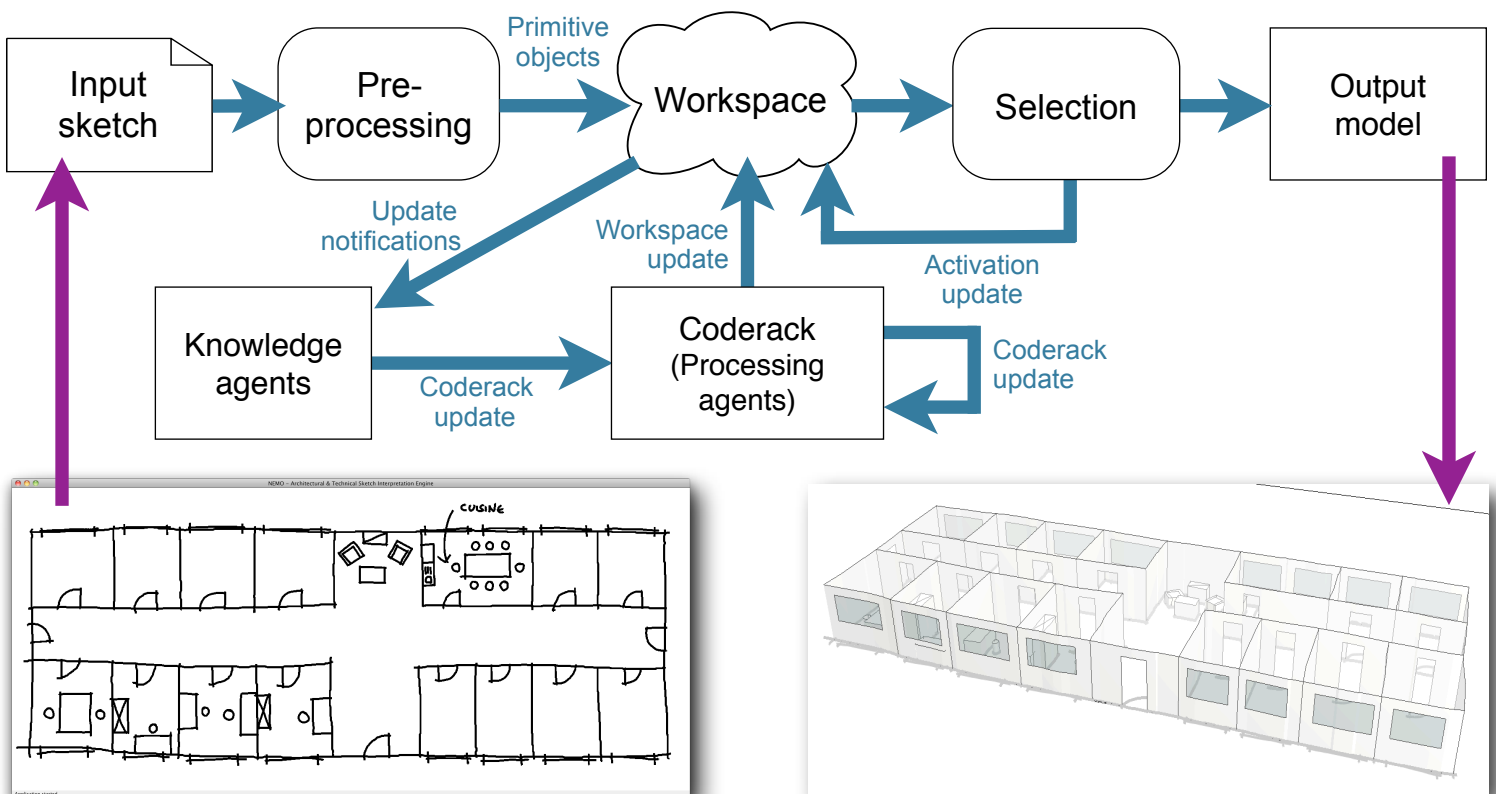
POSTER

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Research Project

Automatic interpretation of hand-drawn sketches aims to generate a model of the designer's intention. This model can be used to evaluate and simulate the building's performance from the early stages of a design project. As a sketch contains many ambiguities, advanced strategies are needed to explore efficiently the interpretation space. This work proposes a new computer model to achieve more flexible and more robust sketch interpretation.

Software prototype: NEMo



Model Features

> Multi-agent architecture

Knowledge is distributed between several agents. Agents cooperate/compete to build the interpretation.

> Shared workspace

Where hypotheses are built. It allows communication between agents.

> Adaptive behavior

It depends on what was discovered before (context). More promising paths are explored faster.

The model is being implemented in the software prototype **NEMo** that aims to interpret architectural sketches.