CS888: Introduction to Profession and Communication

System Research: Methods

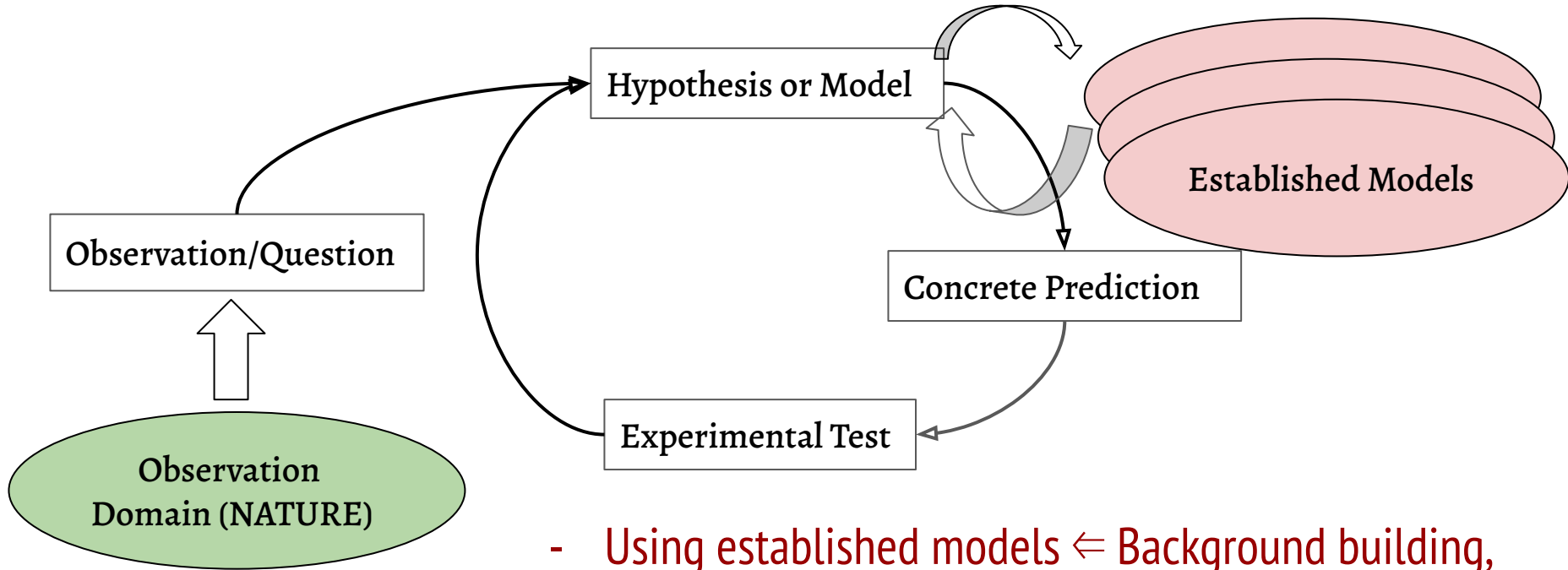Debadatta Mishra, CSE, IIT Kanpur

Research in CS: Fitting into the Shoes of Science!#
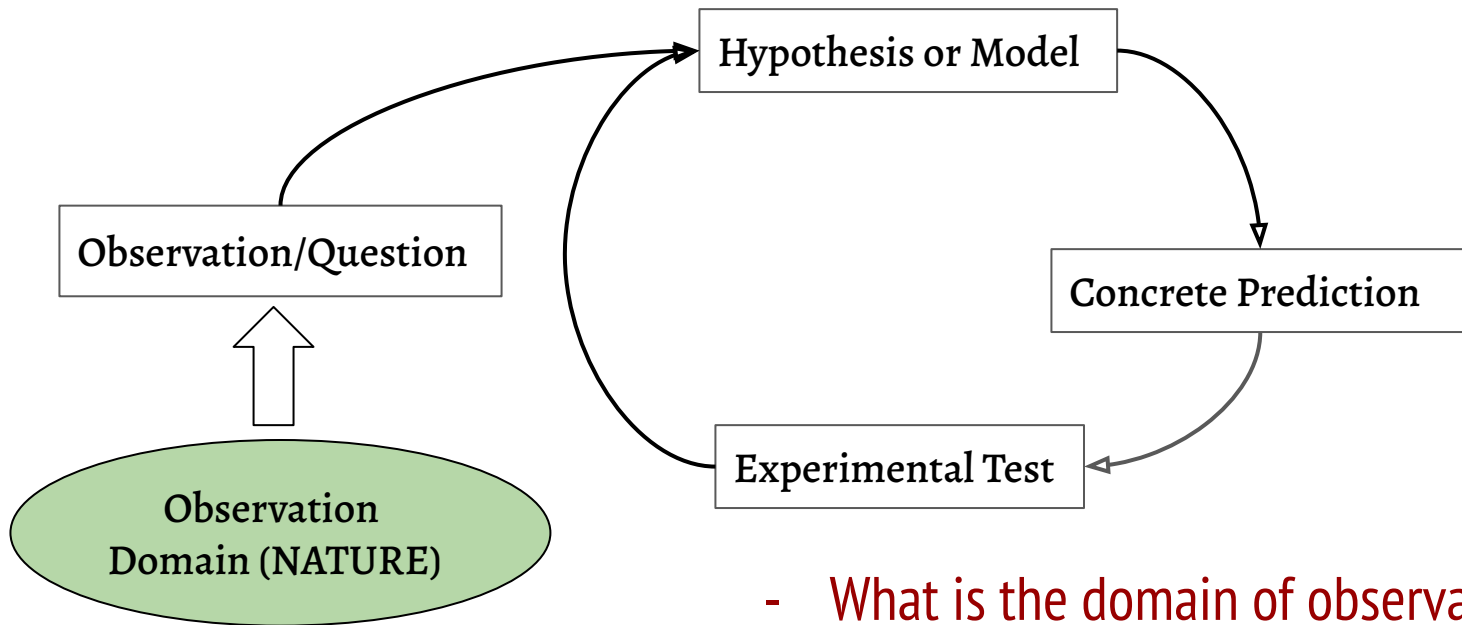
Natural Science: Physics, Chemistry, Biology

- What is the domain of observation for CS?
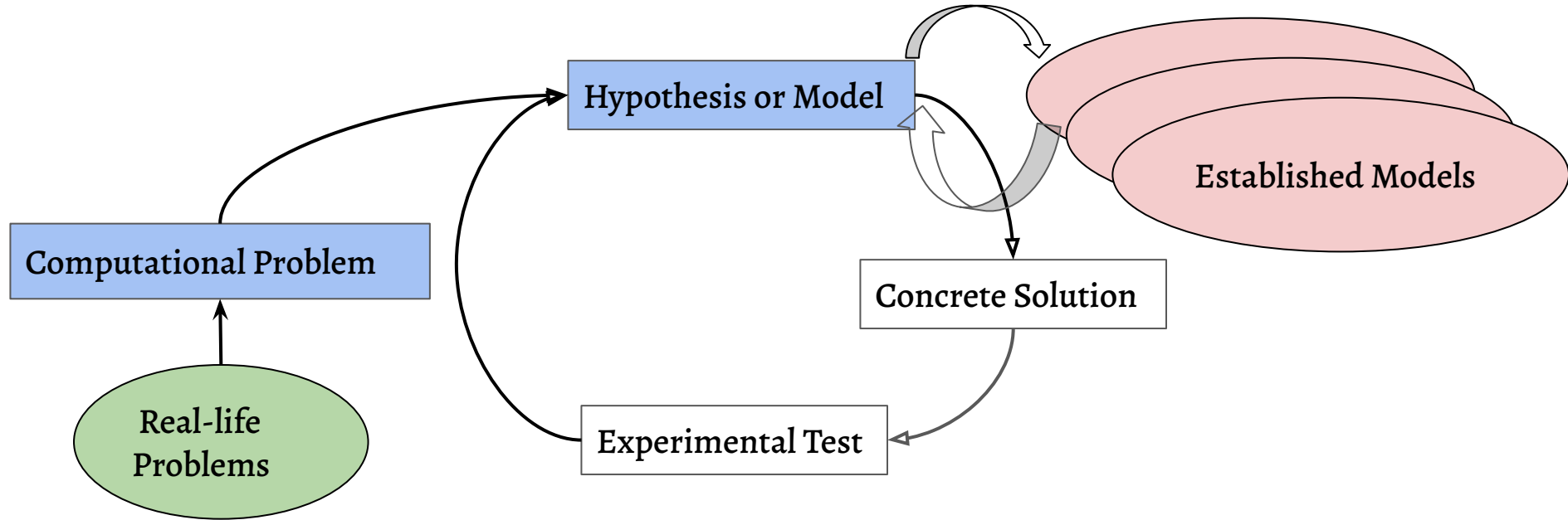- Well known model of a computer is ____

Research in CS: Fitting into the Shoes of Science!


Natural Science: Physics, Chemistry, Biology

- Using established models ⇐ Background building, experience, (outlook?)
- Improving models: maintaining the connect vs. moving away (blue sky all around!)

Research in CS: Fitting into the Shoes of Science!

- CS by nature needs to maintain connect with real-life

- Validating (refining) the model requires engineering and experimenting

- Example?

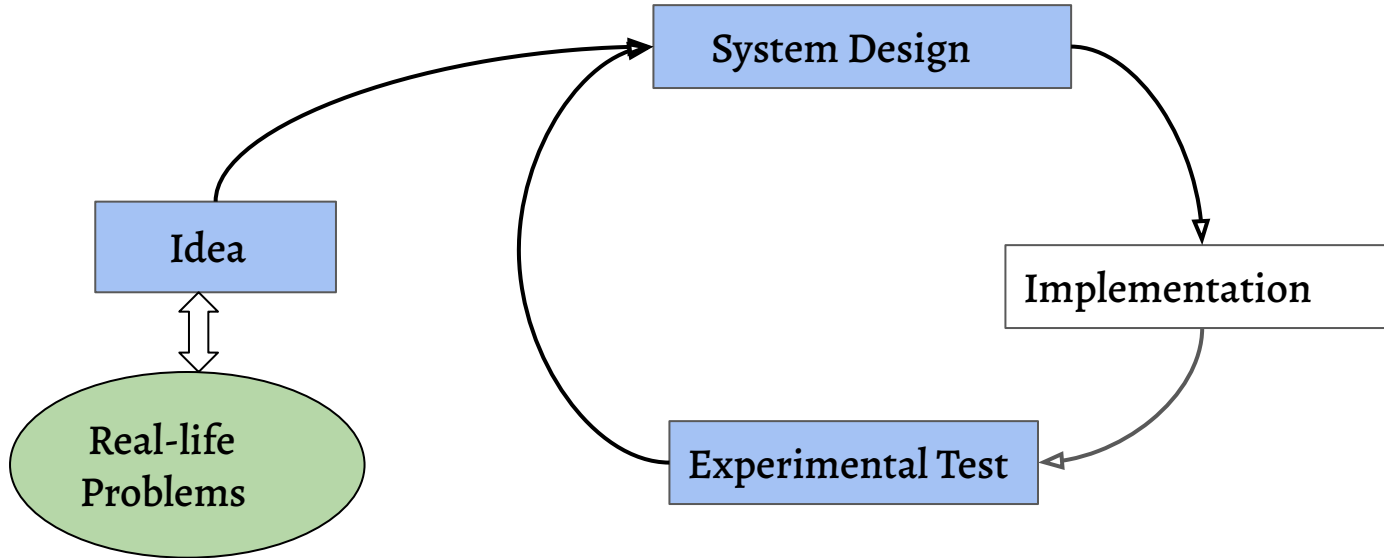# Research in CS: Fitting into the Shoes of Science!
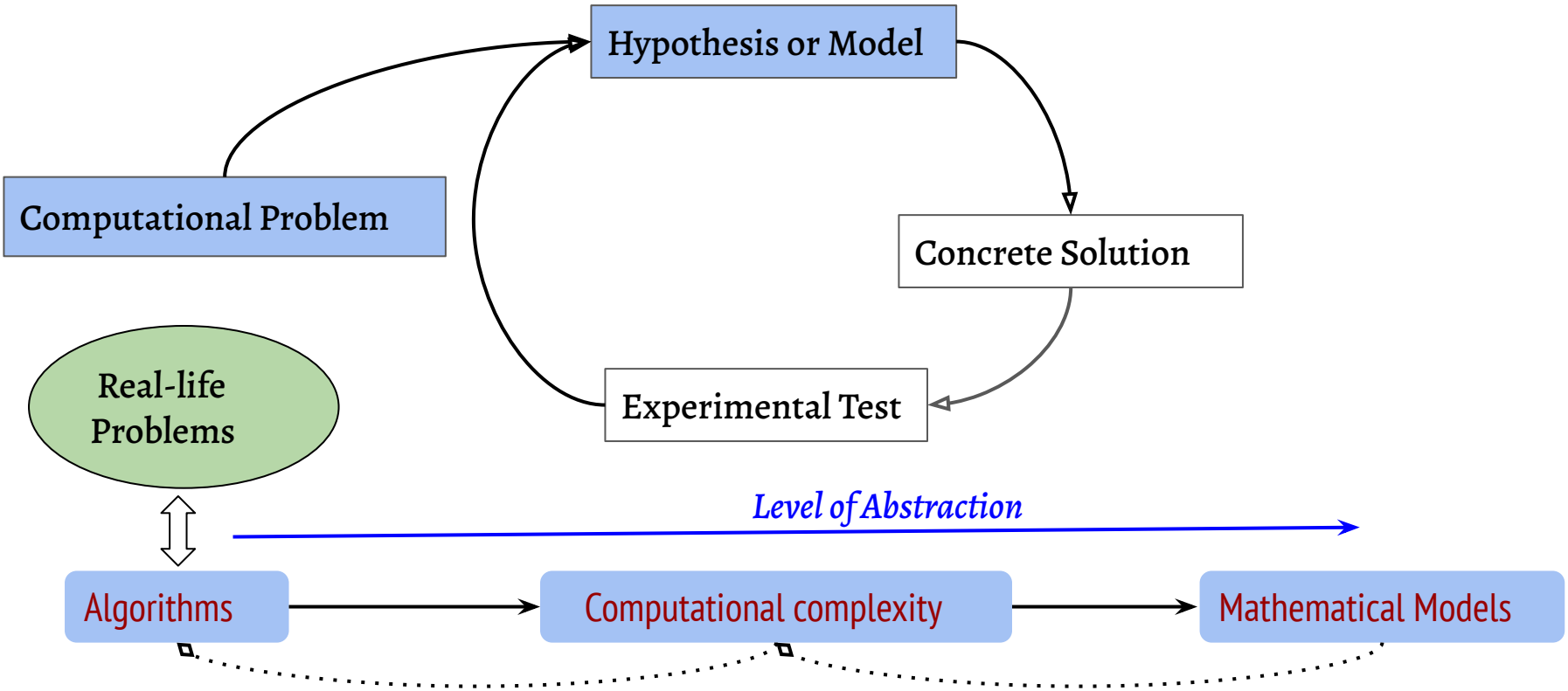
- An example research flow in CS

Assignment - 3

Q1. Write about at least one other flow (problem → Area of CS → Model → … Model) of any real-world problem that belongs to the domain of CS.
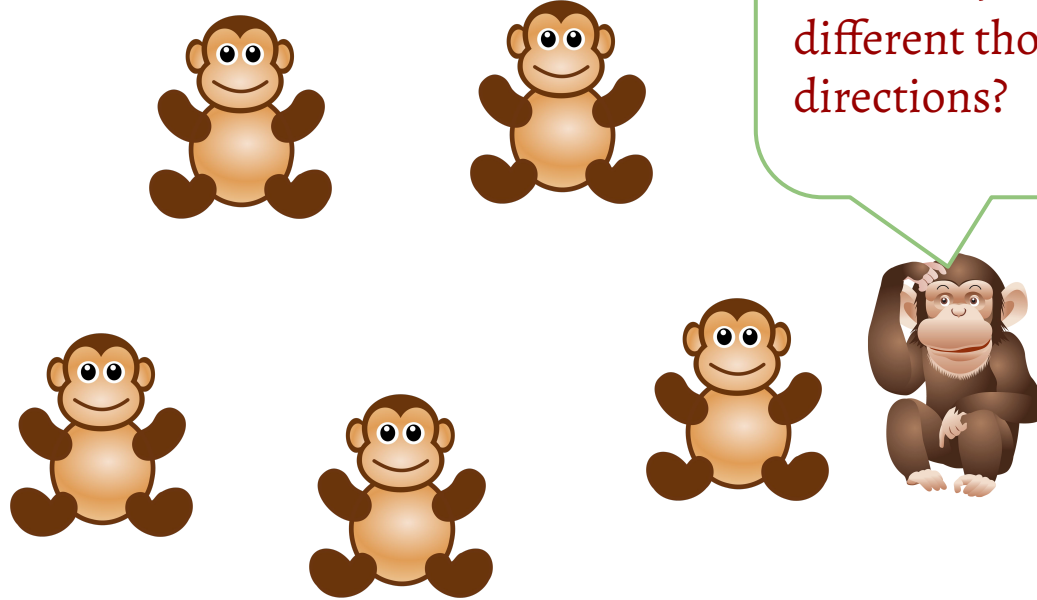
Q2. Find out the model(s) used in any of the two classical papers from your area of research

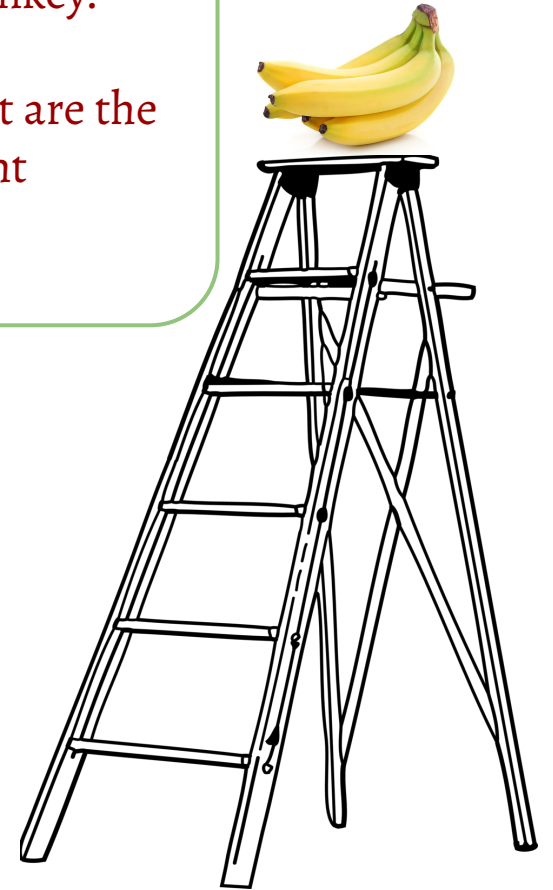# Research involving "E" of CSE

- System Design: Efficiency, Security,
- Experiments → Analyze → {Validation of Idea or New design}

A fun exercise!

- A thinking monkey.

Exercise 4: What are the different thought directions?