



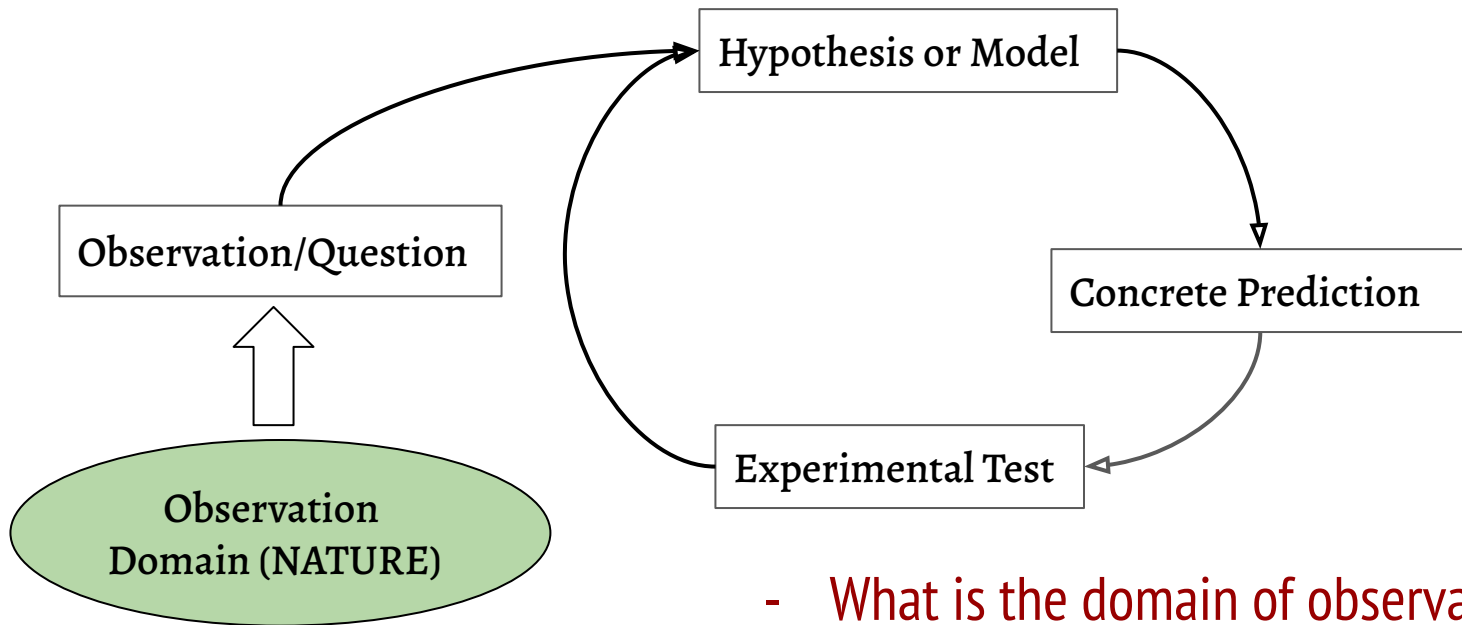
IIT KANPUR  
Indian Institute of Technology Kanpur

# CS888: Introduction to Profession and Communication

System Research: Methods

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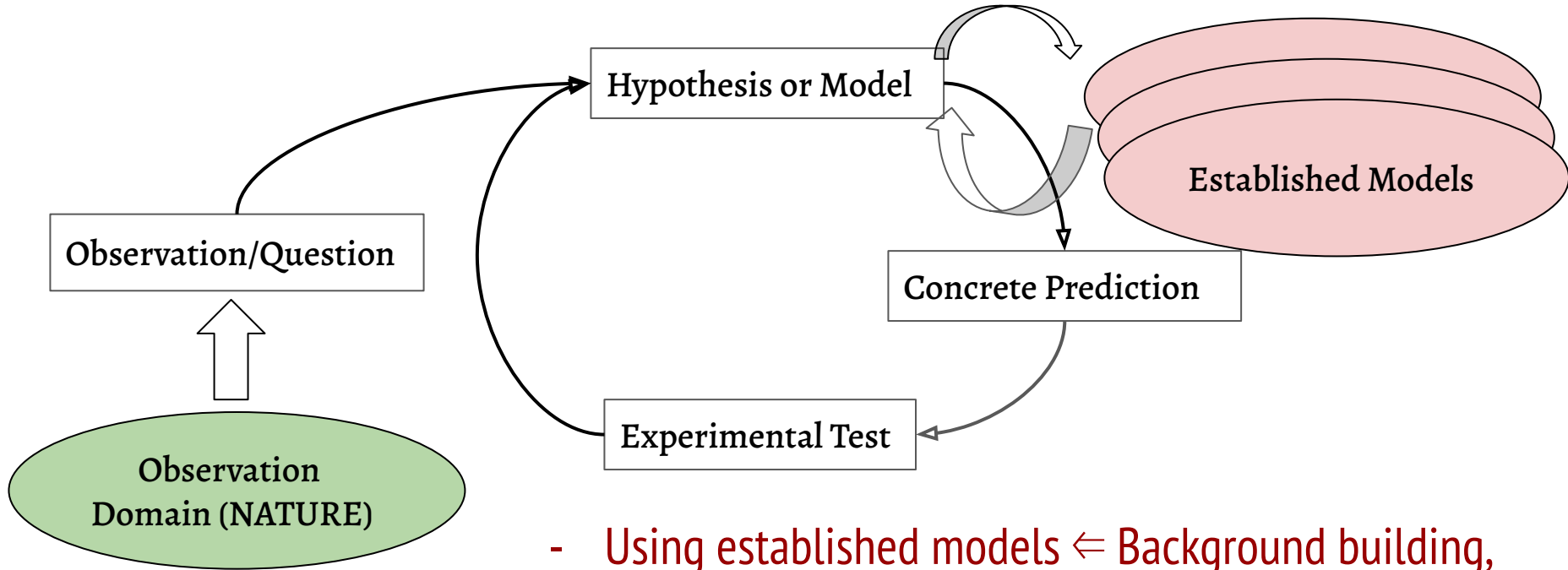
# Research in CS: Fitting into the Shoes of Science!#



Natural Science: Physics,  
Chemistry, Biology

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

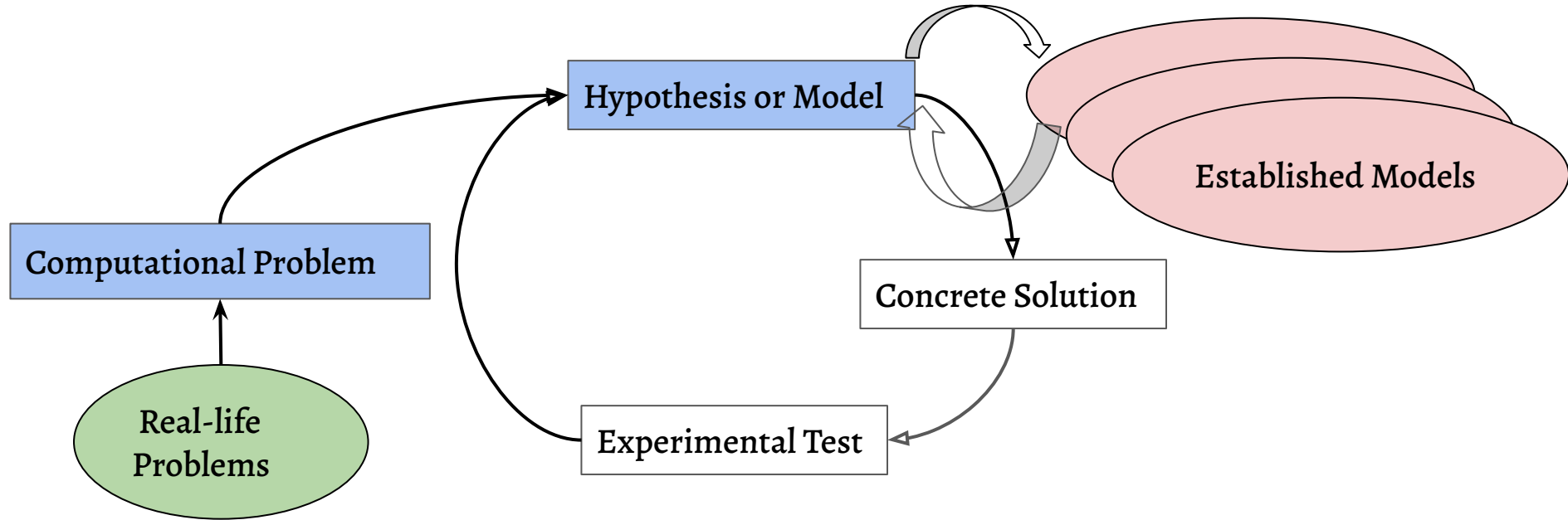
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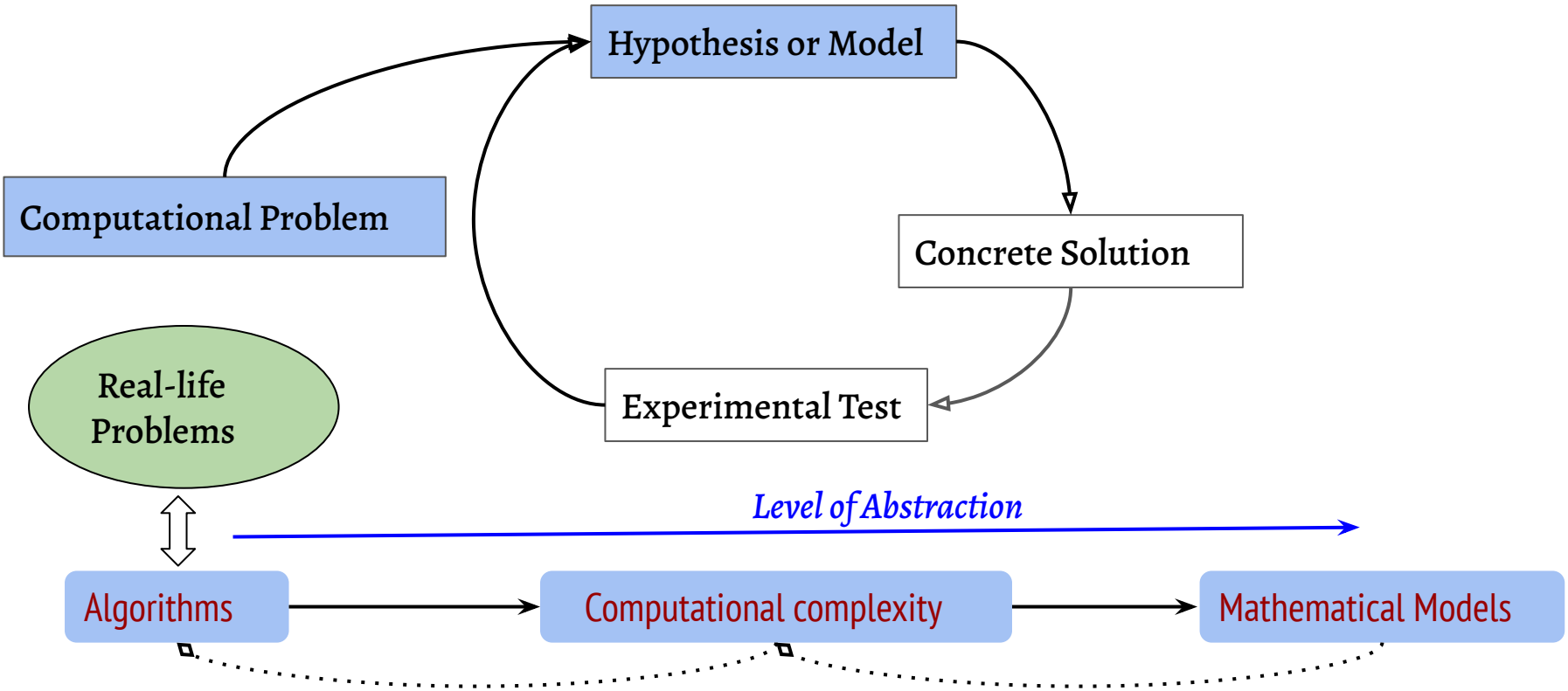
- Using established models  $\Leftarrow$  Background building, experience, (outlook?)
- Improving models: maintaining the connect vs. moving away (blue sky all around!)

# 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!



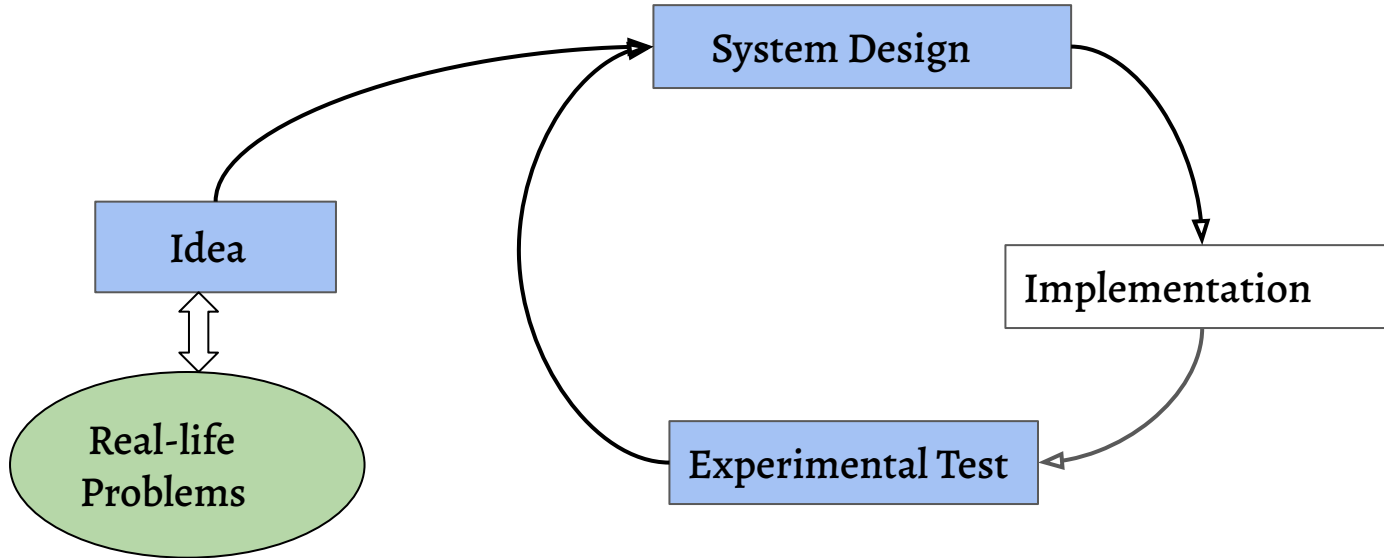
- An example research flow in CS

# 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.

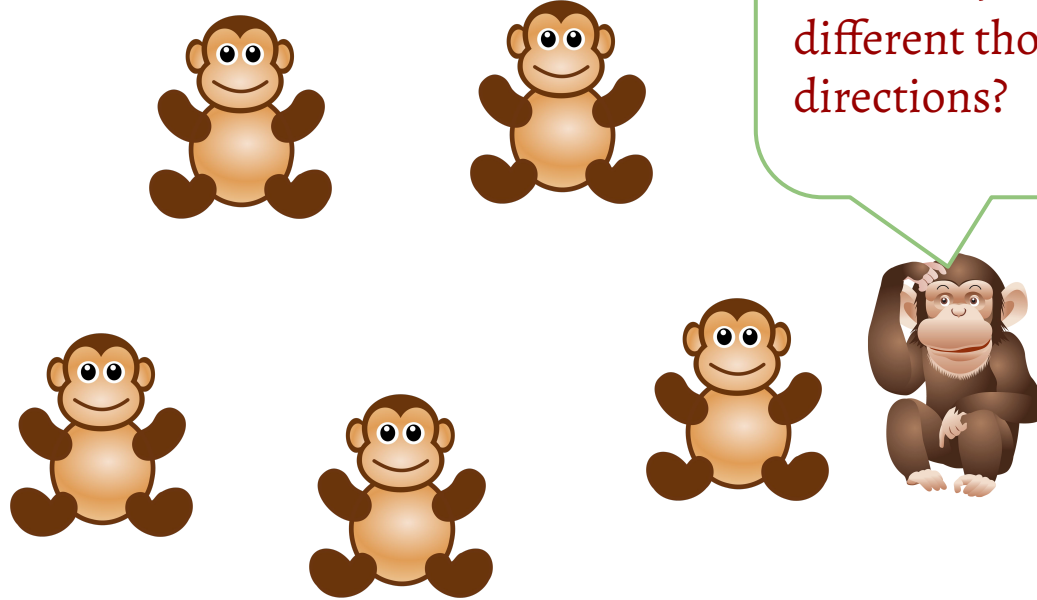
Q2. Find out the model(s) used in any of the two classical papers from your area of research

# Research involving “E” of CSE



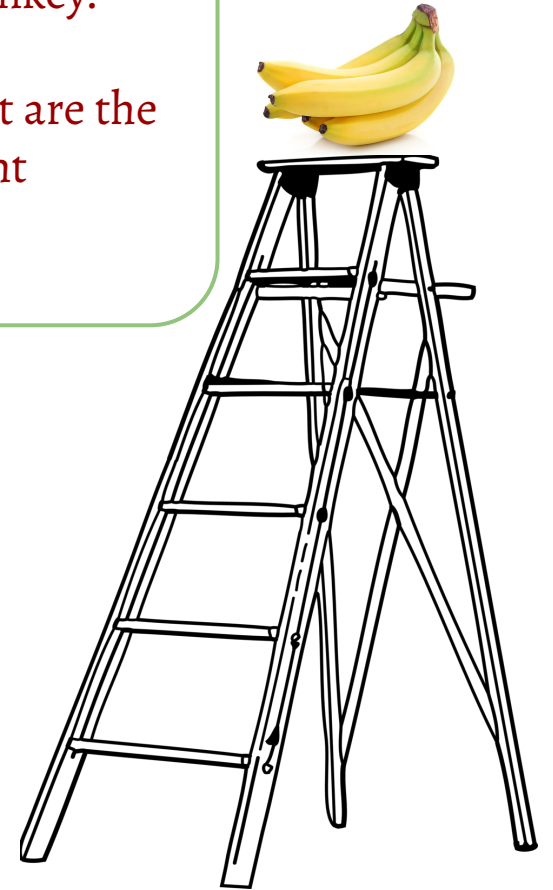
- System Design: Efficiency, Security,
- Experiments → Analyze → {Validation of Idea or New design}

# A fun exercise!



- A thinking monkey.

Exercise 4: What are the different thought directions?



*Disclaimer: The story of 5 monkeys is adopted from a well known story mentioned in various contexts. The usage of monkeys merely serves a purpose of illustration and should not be taken as an offence by the research community and monkey lovers.*