

# THE WORLD OF INFORMATION

Lecture 1



# WHAT IS THE COURSE?

- 40 hours:
  - 15 hours of lectures
  - 12 hours of practical work
  - 10 hours of computer work
  - 3 hours of the final exam
- Type:
  - Conversation
  - Group work
  - Individual work
- Course evaluation:
  - Attendance – 10 %
  - Result of practical work – 30%
  - Result of computer work – 10%
  - Final exam – 50%
- Behave appropriately: no sleeping, no cell phones

# WHAT DO WE FACE EVERY DAY WITH?

- Music
- Language
- Numbers
- Text
- Pictures
- Text
- To be continued... Your ideas?

# NATURE OF INFORMATION

- Information is that which reduces uncertainty. (Claude Shannon)
- Information is that which changes us. (Gregory Bateson)

# WHY IS INFORMATICS IMPORTANT?

- It seeks practical answers to basic questions:
  - What things exist?
  - What do we know?
  - What should we do?

# WHY STUDY INFORMATICS?

- because you want to work
- because you don't want to work
- because you think it is fun
- because you don't think it is fun
- because you think it is useful
- because you don't think it is useful

# NEW SKILLS

- A study of informatics prepares you for just about any professional work available now or likely in the future, and gives you skills relevant to creative and advanced aspects of other fields.
- if you enjoy what you do you'll never work a day in your life.

# THREE DEFINITIONS. IS THERE DIFFERENCE?

- Data
- Information
- Knowledge

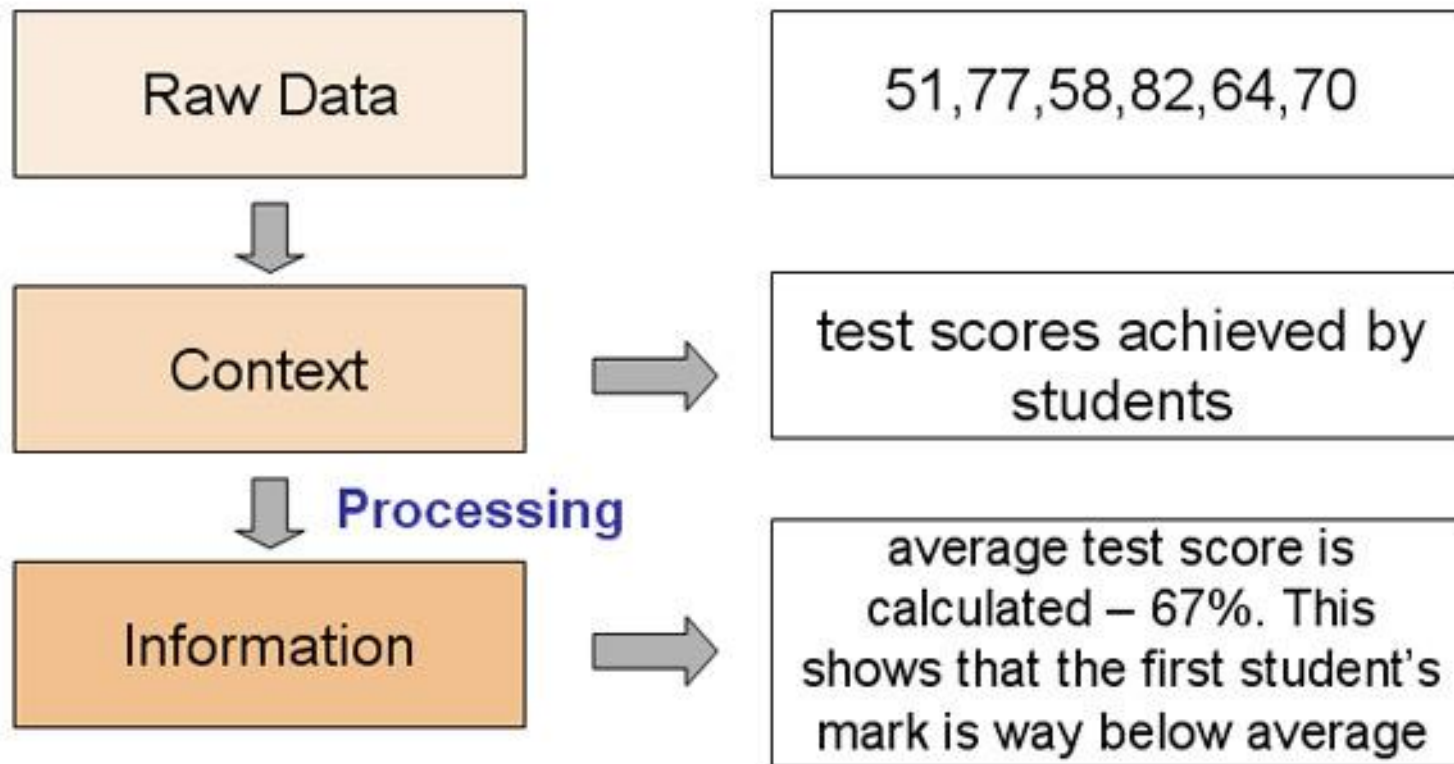


# DATA | ДАННЫЕ

- 51,77,58,82,64,70
- 14-05-08, 09-10-08, 21-11-08, 09-09-08,  
31-07-08

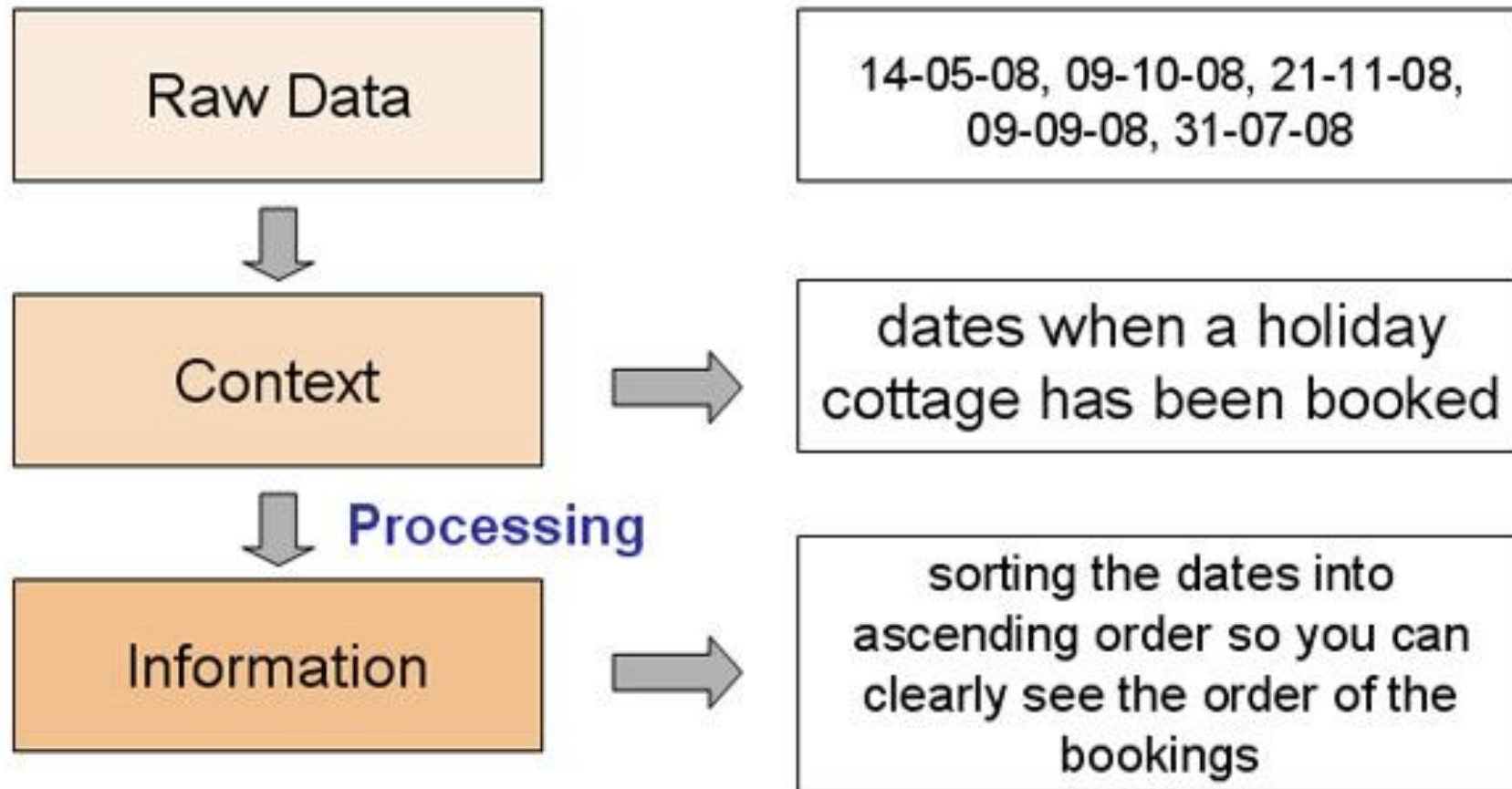
**Data consists of raw facts and figures - it does not have any meaning until it is processed and given a context.**

# INFORMATION | ИНФОРМАЦИЯ



**Information is data which has been processed within a context in order to give it meaning**

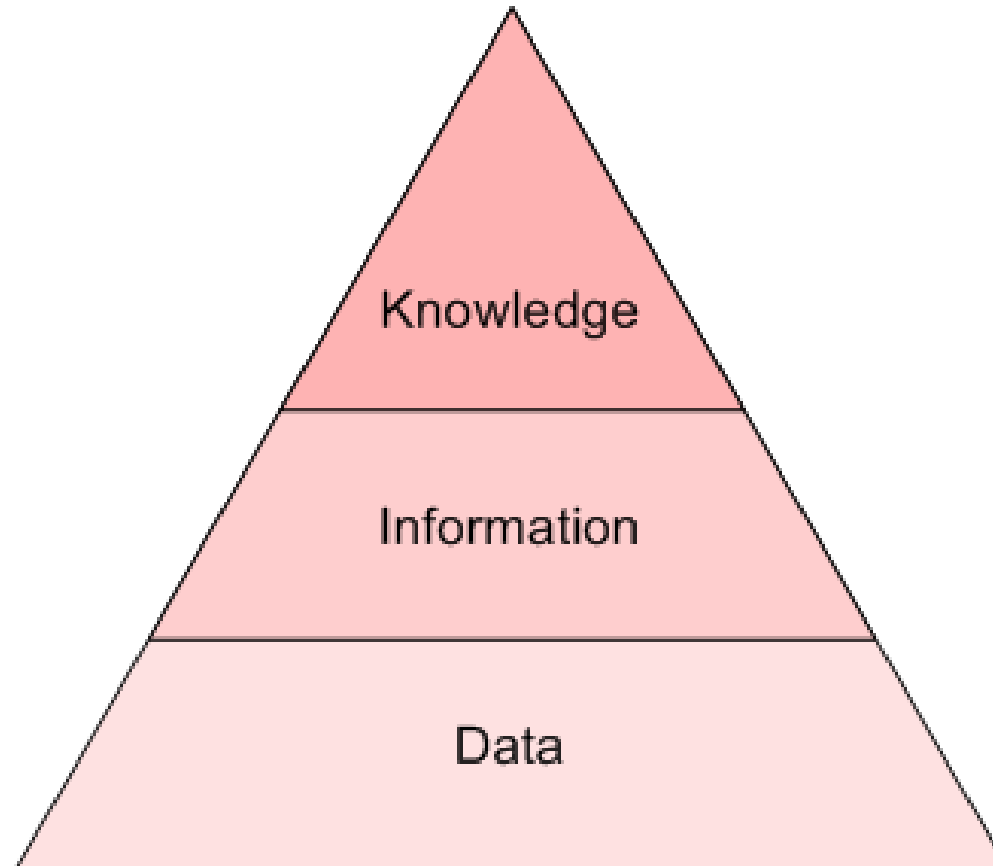
# INFORMATION | ИНФОРМАЦИЯ



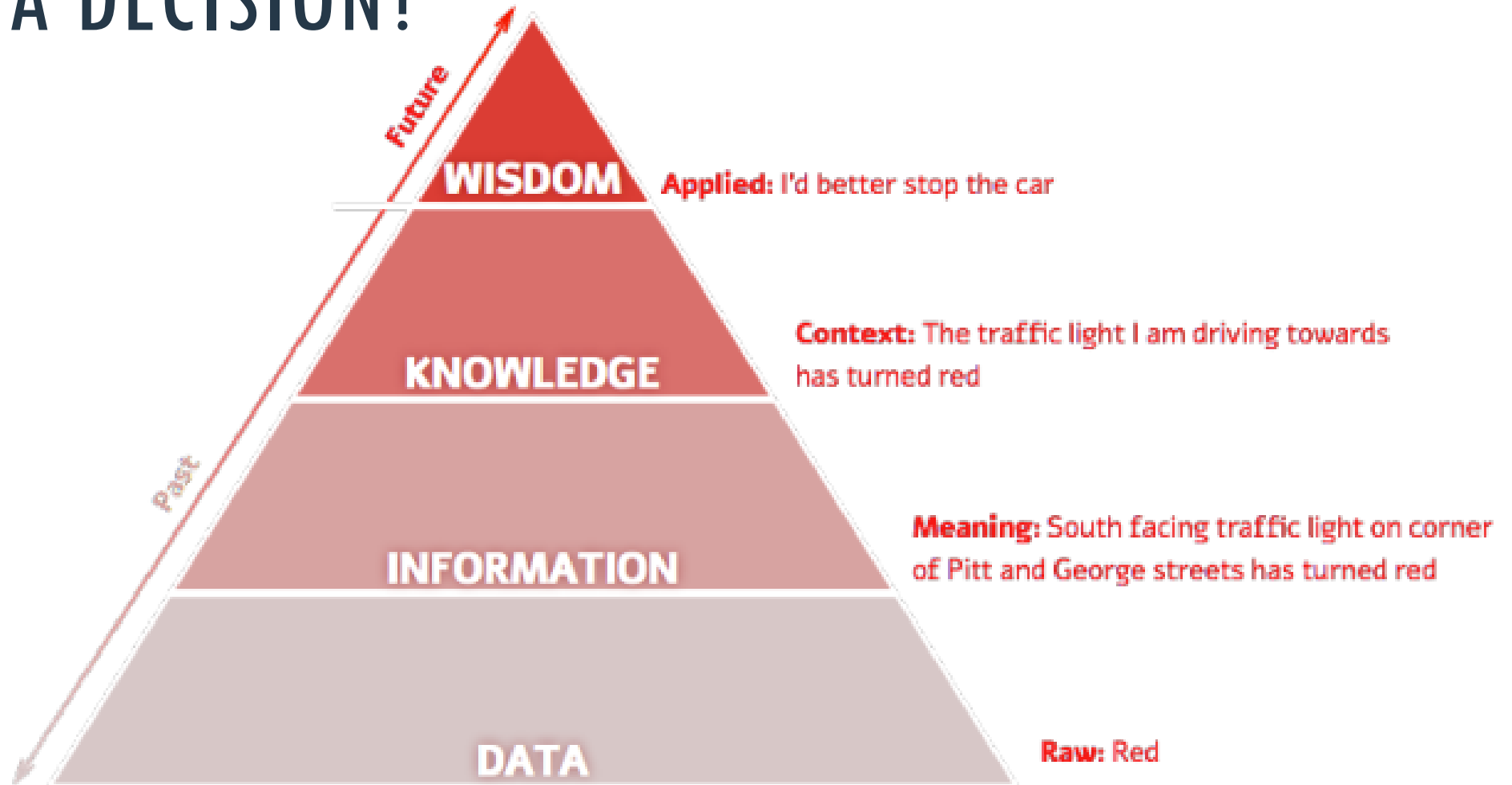
# KNOWLEDGE | ЗНАНИЯ

- Knowledge is the capability of understanding the relationship between pieces of information and what to actually do with the information
- What's the knowledge in previous examples?

# THE RELATIONSHIP BETWEEN IS THE PYRAMID.



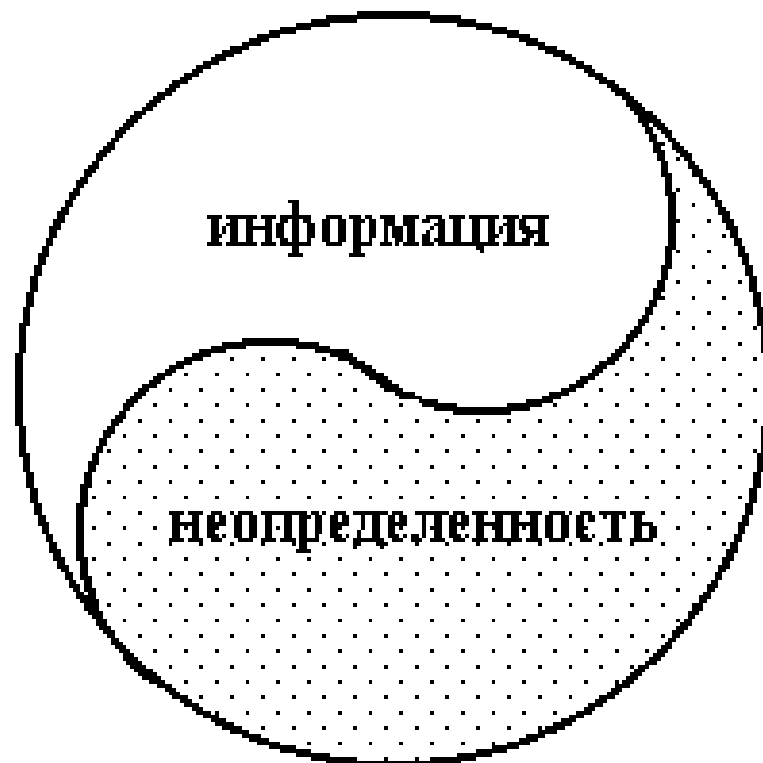
# IS THERE A PLACE FOR WISDOM? AND HOW DO YOU MAKE A DECISION?



# HOW CAN WE MEASURE IT?

- Entropy
- Uncertainty
  - Increase
  - Decrease
- Certainty
- Non-Entropy

# HOW CAN WE MEASURE IT?





# HOME TASKS

1. Give some examples of knowledge, data and information?
2. What is the wisdom in this context? Give some examples.
3. What's the difference between wisdom and knowledge?
4. Why do you want to study informatics?
5. How can we measure information?