## Towards the Exam

Computational Social Intelligence - Lecture 21

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- Introduction
- Methodological Questions
- Experimental Question
- Conclusion

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#### **Exam Structure**

The exam includes 3 questions:

- Methodology Question 1 (40% of the score);
- Methodology Question 2 (40% of the score);
- Experimental Question (20% of the score).

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# Examples (I)

Topic	Lecture
Mice and Learning	04
Aggression and faultiness	04
Happiness and appropriate behaviour	08
Psychiatric Diagnosis	09
Robot Gestures and Godspeed scores	10
Robot Gestures and Personality	10

# Examples (II)

Topic	Lecture
Robot Gestures and Attraction Paradigm	11
Robot Gestures and Understandability	11
Predicting Gender of CS Students	12
Inference of Study Level from Age	12
Facial Authentication	13

### **Methodological Questions**

- The methodological questions <u>build upon the</u> <u>examples</u> introduced during the course;
- During the exam, <u>problems similar</u> to those introduced in the <u>examples</u> have to be addressed;
- The solution of the problems corresponds to the <u>application</u> of the <u>methodologies</u> introduced during the course.

### **Example of Question**

 The following data shows number of years spent in education and yearly income (in thousands of Pounds) for 10 persons:

$$(3.2,21)$$
  $(4.1,22)$   $(3.7,25)$   $(5.0,23)$   $(6.0,30)$   $(5.7,31)$   $(6.2,35)$   $(6.5,33)$   $(7.0,21)$   $(7.2,35)$ 

### **Example of Question**

- Calculate the correlation between number of years spent in education and yearly income;
- Calculate covariance between number of years spent in education and yearly income;
- Is there a statistically significant relationship between number of years spent in education and yearly income?
- Consider those who spent at most 5 years in education and the others. Is there a statistically significant difference between the two groups in terms of yearly income?

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### **Experimental Question**

Experimental Question (20% of the score):
 Please describe one of the experimental studies presented during the course ("Synthetic Impressions", "Speech and Personality", "Facial Expressions", "Nonverbal Behaviour in Phone Calls").

### **Advice**

- Establish a <u>connection</u> between the <u>experimental study</u> and the <u>methodologies</u> you have learned;
- Identify and state the <u>research hypotheses</u> and describe clearly the <u>results</u>;
- Provide information about the <u>psychometric</u> <u>instruments</u> that have been adopted.

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### General Advice (I)

- Do not use the slides as a textbook, they are designed to support the lecture and they do not include sufficient detail;
- Use the texts associated to each lecture to prepare the exam, it is there that you find everything you need;
- If you understand, it is easier to remember.

### General Advice (II)

Understand and replicate all examples
 mentioned earlier (imagine you have to give a
 lecture about), figure out how the various
 methodologies involved have been applied;

 Prepare in advance the response to the experimental question (imagine you have to give a lecture about).

#### **Conclusions**

- The course is <u>difficult</u> ...
- ... but you are <u>smart!</u>
- Thank you for your attention during the course.