Computer Networks

0. Presentation

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Escuela Técnica Superior de Ingeniería de Telecomunicación
Universidad Rey Juan Carlos

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URJC Escuela Técnica Superior de Ingeniería de Telecomunicación

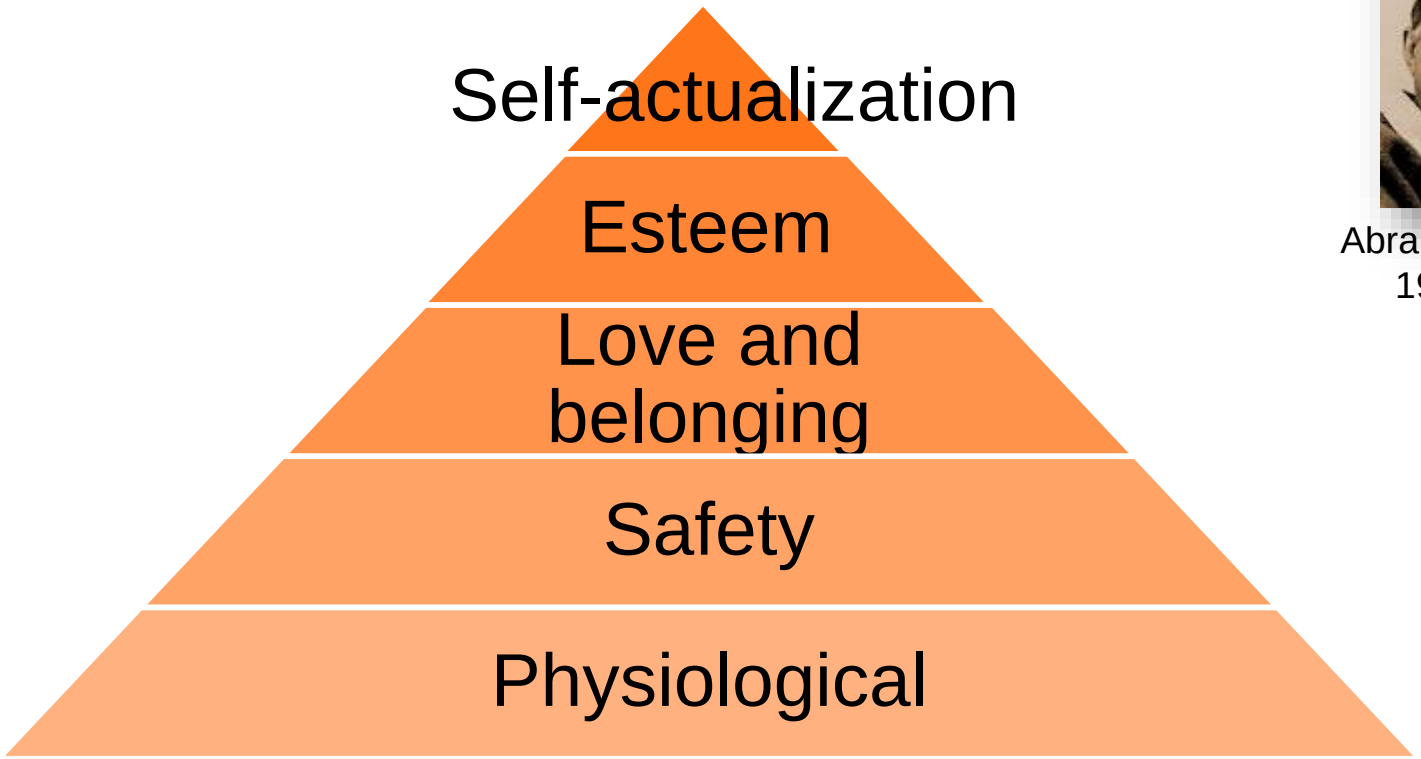
Table of contents

1. Introduction

- Name: **Computer Networks**
- Grade: Biomedical Engineering
- Teaching period: 2º, 1Q
- Type: Mandatory
- Credits: 6 ECTS
- Language: English
- Professor: Boni García (boni.garcia@urjc.es)
- Classroom: Laboratory 1.106 (Alcorcón Campus)

2. Objective

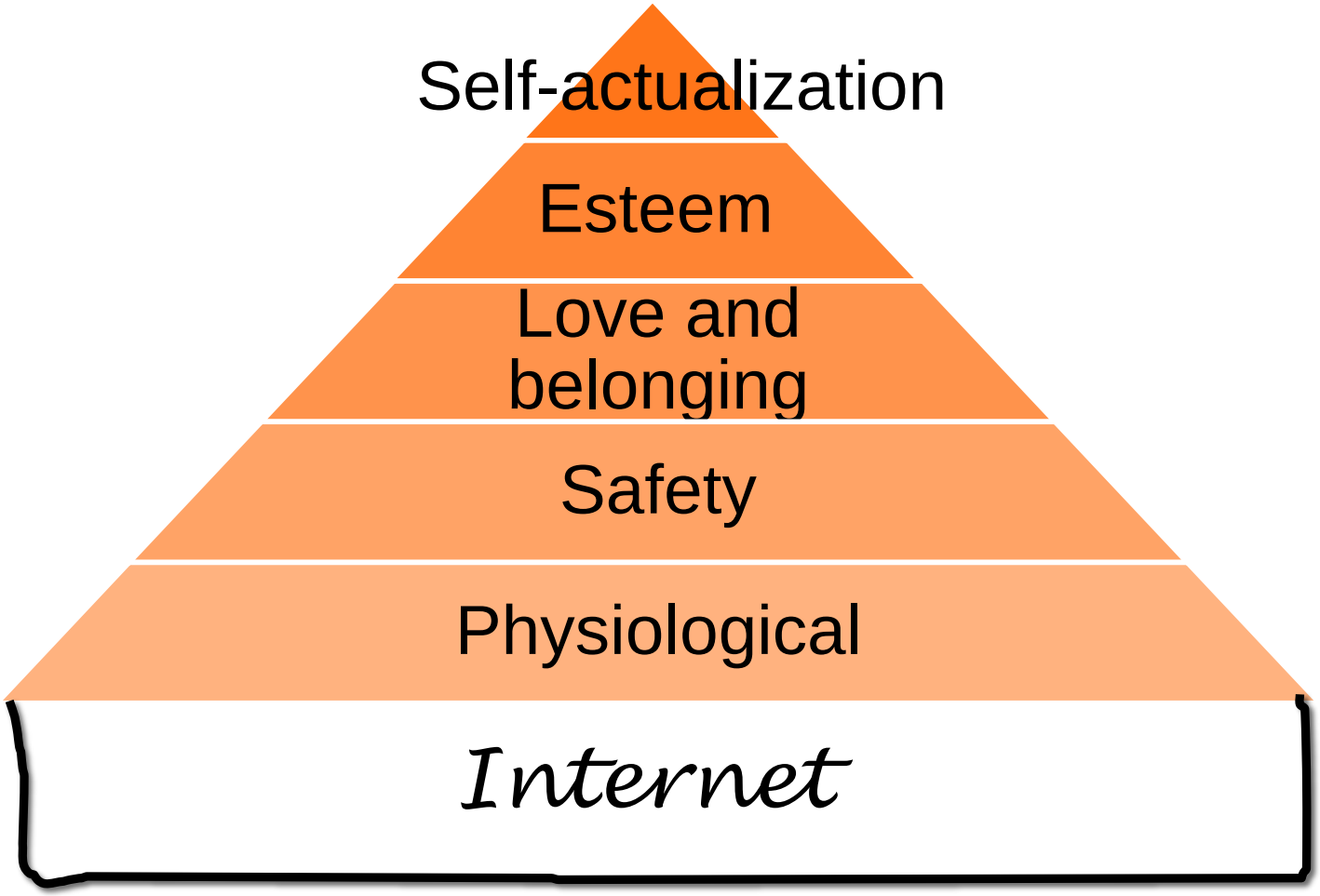
- The Maslow Pyramid:



Abraham Maslow
1908-1970

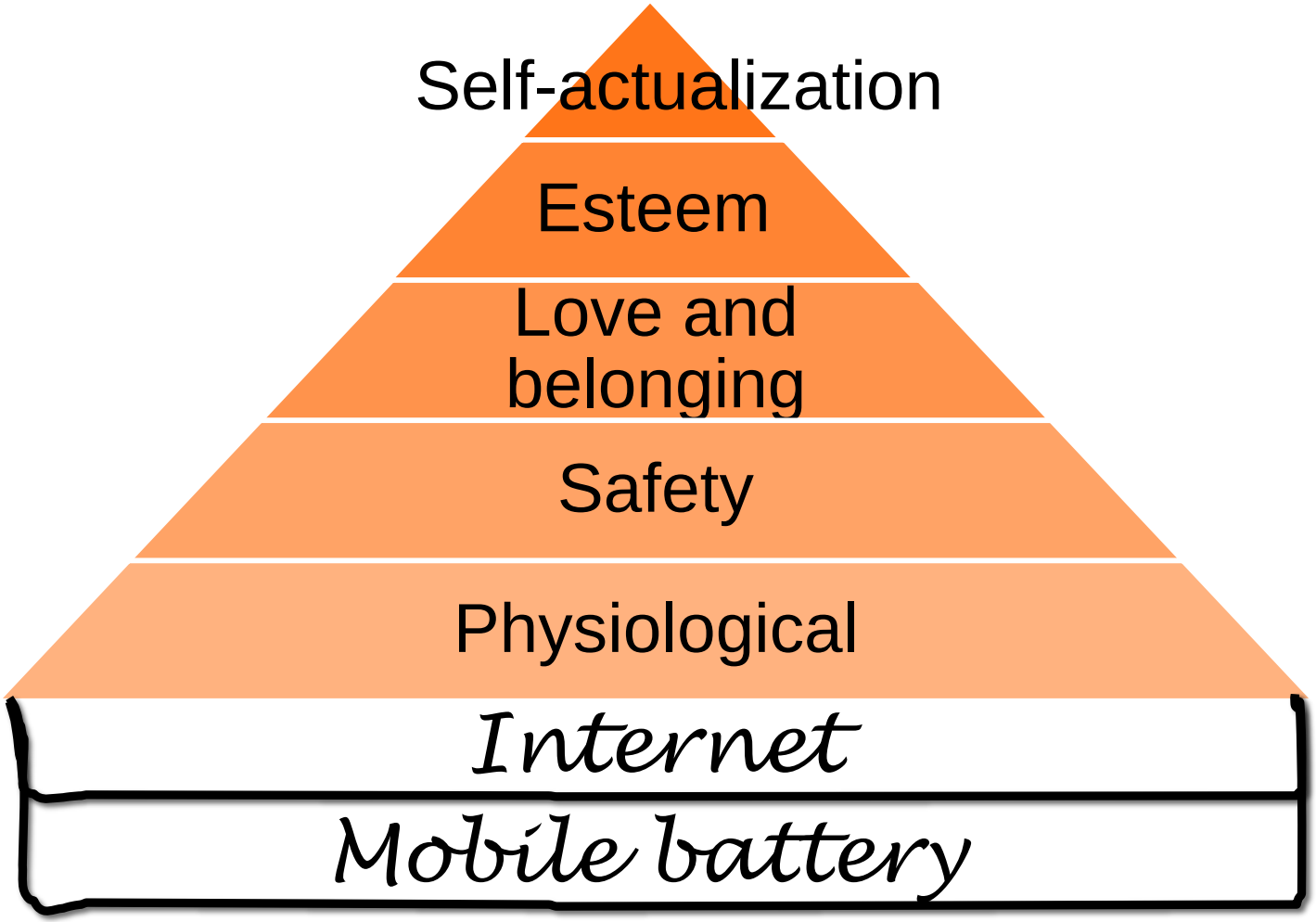
2. Objective

- The Maslow Pyramid 2.0:



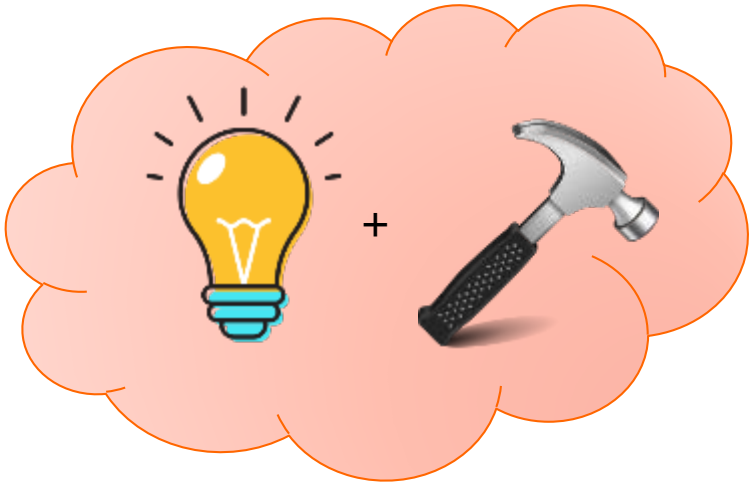
2. Objective

- The Maslow Pyramid 2.1:



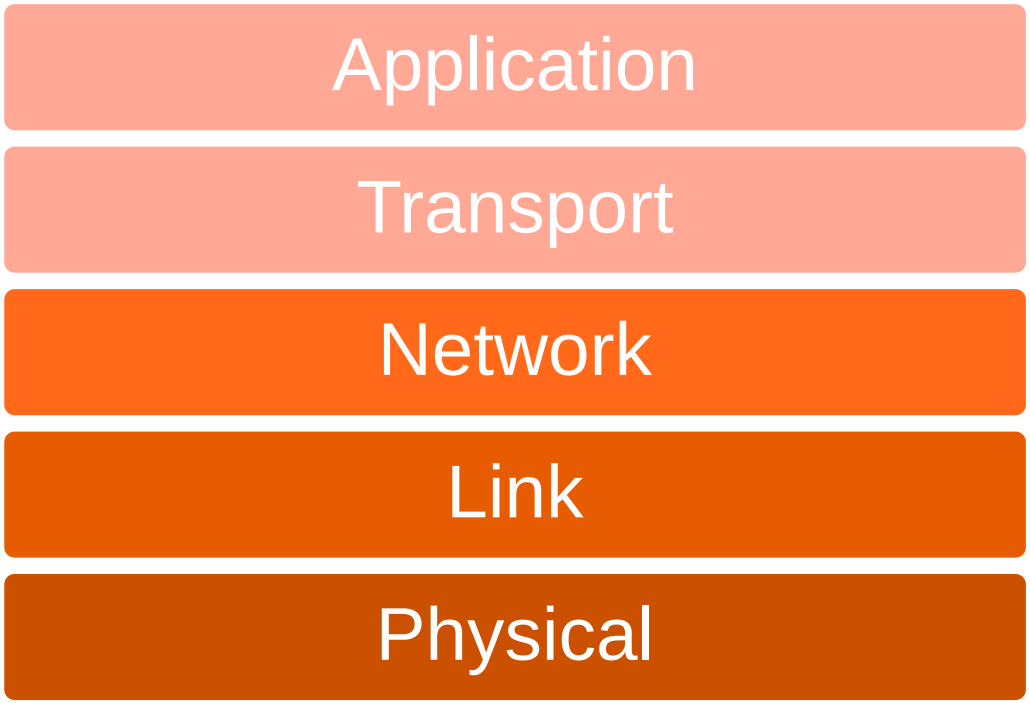
2. Objective

- The main objectives of this course is to understand how **computer networks** (based on the **Internet** model) works:
  1. To learn the theory behind the Internet model
  2. To practice about protocol analysis and network diagnostics



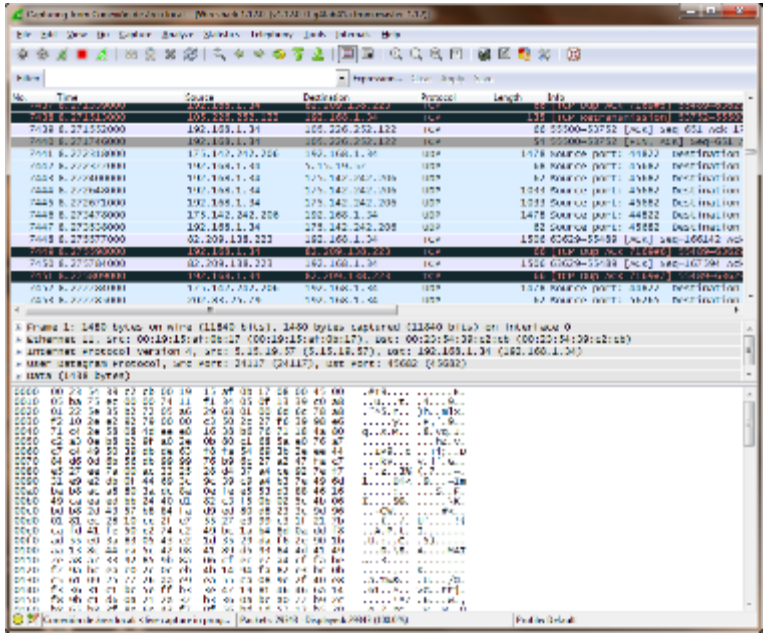
2. Objective

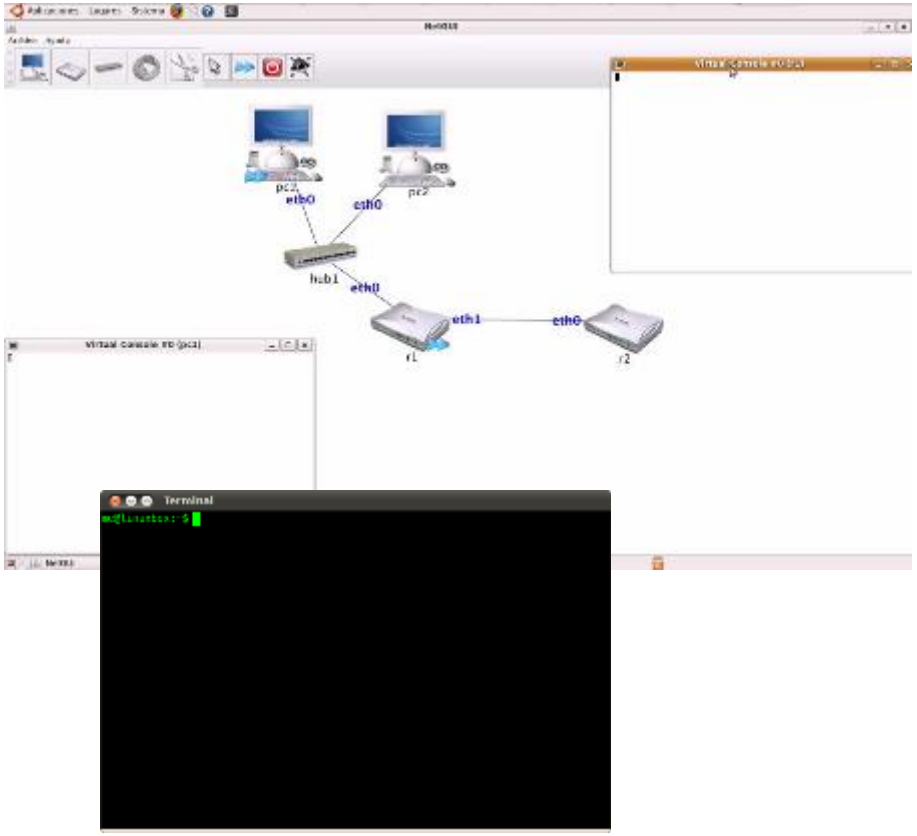
1. To learn the theory behind the Internet model



2. Objective

2. To practice about protocol analysis and network diagnostics





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3. Contents

Part I

1. Introduction to computer networks
2. Link layer
3. Network layer

Mid-term #1

Part II

5. Transport layer
6. Application layer

Mid-term #2

4. Methodology

- There will be two types of classes: theory and practice
- The theory is aimed to explain the concepts required to understand the underlying technology
- There is an strong focus on the practice (learn by doing approach)

5. Evaluation

- Ordinary/extraordinary evaluation:

1. Mandatory delivery of practices: 10%
2. Mid term exam #1: 45%
3. Mid term exam #2: 45%

- Requirement: Minimum score of 4.0 in each exam

6. Bibliography

- TCP/IP illustrated, 2nd ed. Kevin R. Fall, Richard W. Stevens Addison-Wesley, 2012
- Computer networks: top-down approach, 5th ed. James F. Kurose Pearson Addison-Wesley, 2017
- Computer networks 5th ed. Andrew S. Tanenbaum and David J. Wetherall. Pearson, 2010
- Computer networks: a systems approach, 4th ed. Larry L. Peterson Elsevier, 2007

7. Final remarks

- ***Ambition, the film***
  - European Space Agency (ESA), 24 de octubre de 2014

7. Final remarks

- What can we learn from this short film?
  - Perseverance in learning (try and try again)
  - Learn from our mistakes
  - Learn >> pass