



Título: Some suggestions concerning Assignment_3

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1. Purpose of this document

This document presents a few suggestions relative to possible topics to be addressed in Assignment_3, APSEI, 2019-20.

The indicated topics favor some of the analytic aspects of current information and communications services, products and technologies since they are of great importance for a good understanding of their *modus operandi*. It is this understanding that enables an informatics engineer to be aware of the social and professional implications of his/her profession.

2. About Assignment 3

2.1 What is it about?

Assignment_3 consists of an individual report about a topic that you consider relevant to this course. The selection of topics indicated for Assignment 2 is a good starting basis for this work. As much as possible, the study should be focused on the analytic and quantitative aspects of the topic that you chose.

2.2 What do you have to deliver?

- A written report (MS Word or compatible)
- The code written to perform any calculations or simulations that you have made.

2.3 How?

- Use the template provided in Moodle.
- Use the following naming procedure:
< Assign3_report_APSEI_19-20 >
- No more than 25 pages,... please.

2.4 Deadline for submission:

- a) Época normal / Norma season: 23h59, 12th June 2020.
 - b) Época de recurso / Time of appeal: 23h59, 14th July 2020. (There will be a specific entry for Época de recurso / Time of appeal)
- Submission Process: Via Moodle.

2.5 Indication of Assignment_3 Subject Work Subject

This entry in Moodle, <https://elearning.ua.pt/mod/assign/view.php?id=584724>, is for the insertion by each student of a text no longer than 500 characters describing the work to be carried out in Assignment_3.

The deadline for insertion of this description is the 15th of May 2020, 23h59.



3. Suggested Topics

The suggested topics are organized in the following five sections and inside each section there are some sub-topics. Some sub-topics might appear in more than one section. In front of each topic there is a reference number that corresponds to a reference at the end of this document. All of these references are available in Moodle and some are reports from APSEI students of previous years:

“Selection of Assignment Reports from previous years”

(<https://elearning.ua.pt/course/view.php?id=5191#>).

3.1 User Oriented Topics

- a) User personal data gathering [1][2].
- b) Usage profiling [3].
- c) Recommendation systems [6]

3.2 Contents Oriented Topics

- a) Page ranking.[4], [6]
- b) Google Adds / Google AdWords / Google Ads Auctions. [6]
- c) Search engines / Search engine optimization (SEO). [4],[5]
- d) Recommendation systems [6].
- e) Trending [5].

3.3 Market Oriented Topics

- a) Market uptake dynamics for new services, products and technologies [16]
- b) Viral phenomena / events [16], [15]

3.4 Business Oriented Topics

- a) Business models / Business modeling tools [17]
- b) Economic analysis of business models [17]

3.5 Engineering Oriented Topics

Information systems dimensioning

- a) Bandwidth [8]
- b) Processing power [8]
- c) Storage [8]

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