SPEET: AN INTERNATIONAL COLLABORATIVE EXPERIENCE IN DATA MINING FOR EDUCATION

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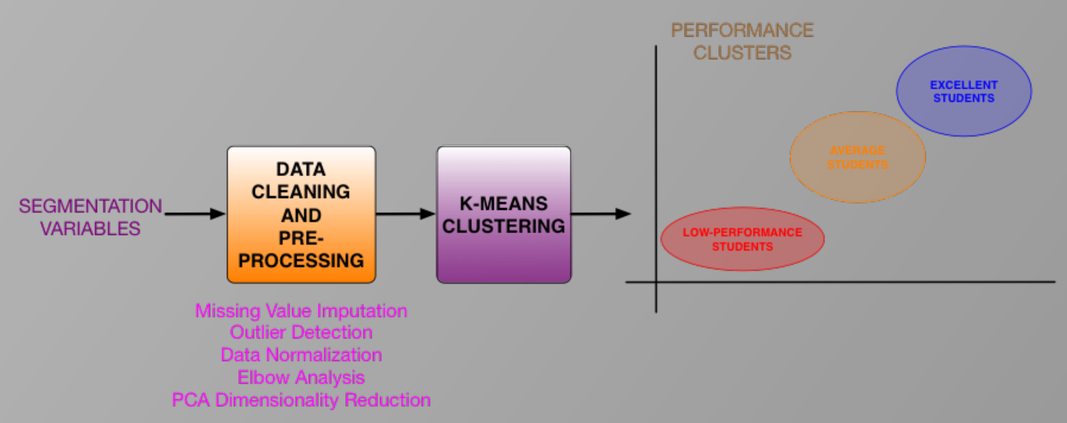
The SPEET PROJECT

SPEET is an ERASMUS+ project aimed to determine and categorize the different profiles for engineering students across Europe. The main rationale behind this proposal is the observation that students performance can be classified according to their behavior while conducting their studies. After years of teaching and sharing thoughts among colleagues from different EU institutions it seems students could obey to some classification according to the way they face their studies. Therefore, if it would be possible to know what kind of student one student is, this may be of valuable help for tutors.

Student clustering and performance prediction

SPEET project applies clustering and classification methods to start to obtain students' performance patterns. The objective is to obtain classification results that will allow us to identify the kind of students existing at the different degrees/universities along with the main attributes that characterize such students.

Once students are properly organized in clusters, the goal is to try to understand why these students have these performance results. In other words, the goal is to answer the question: "Are students belonging to a given cluster characterized by a set of explanatory variables?"

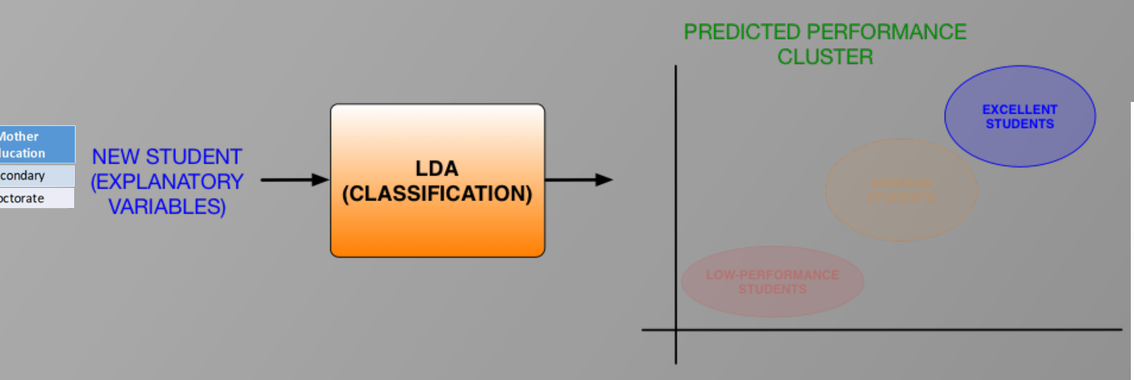


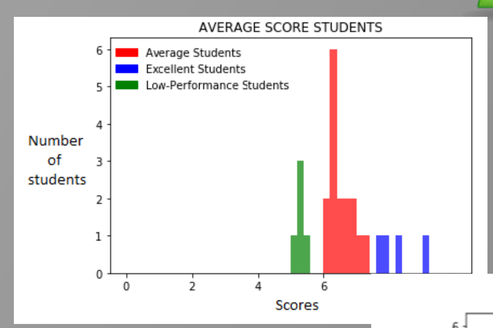
SEGMENTATION VARIABLES – TO GENERATE PERFORMANCE CLUSTERS

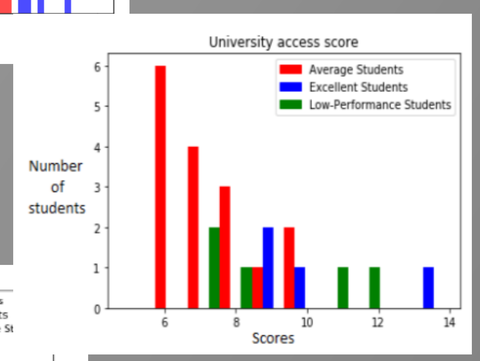
Student	Subj 1 Score	Subj 2 Score	...	Subj M Score
1	8	8	...	5
2	6	6	...	5

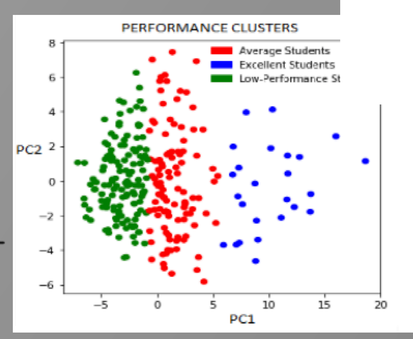
EXPLANATORY VARIABLES – TO EXPLAIN PERFORMANCE CLUSTERS

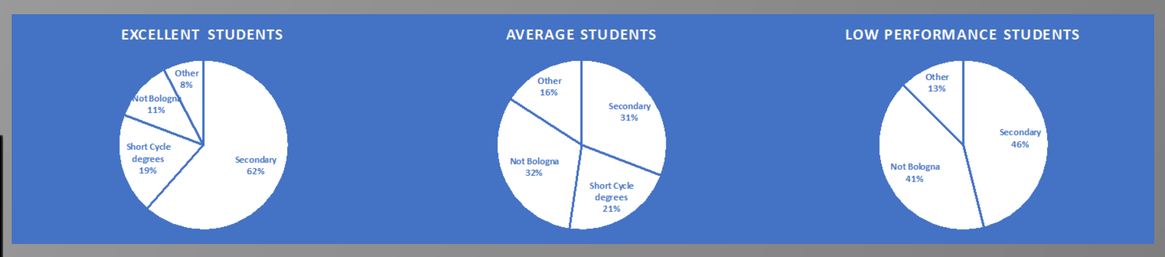
Student	Sex	Residence	Access Age	Previous Studies	Admission Score	Father Education	Mother Education
1	M	Barcelona	20	Not Bologna	5	University	Secondary
2	F	Sabadell	18	Secondary	7	Secondary	Doctorate



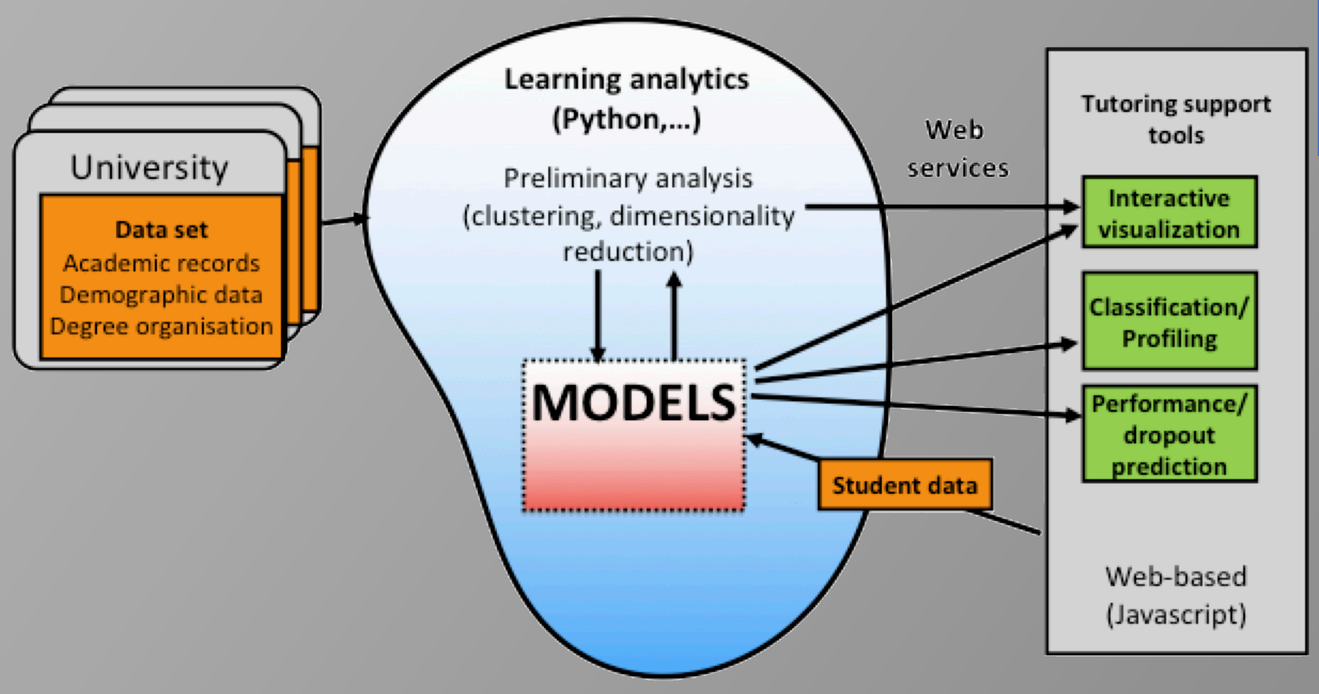








The goal : IT tool for tutoring support



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