Artificial Intelligence Master (UPC-URV-UB), course 2010-2011

## UPC-Artificial Intelligence Seminar, 2010-2011

Topic: Business Intelligence - Making Business Decisions through Data Mining

Main bibliography: Business Intelligence, Jerzy Surma, Business Expert Press, February 10, 2011, Num. of Pages: 125, ISBN: 978-1-60649-185-0 http://www.surma.edu.pl/?page\_id=282 http://www.businessexpertpress.com/books/business-intelligence

**Lecturer:** Dr. Jerzy Surma Warsaw School of Economics, Warsaw, Poland <u>http://surma.edu.pl/surma.html</u>

**Dates:** May 30<sup>th</sup> - June 3<sup>rd</sup> , 2011, from 15 to 19h

**Place:** Technical University of Catalonia (Barcelona**Tech**), Campus Nord, Jordi Girona 1-3, 08034 Barcelona

Abstract: Business Intelligence (BI) is a user-oriented process of gathering, exploring, interpreting and analyzing of data, which leads to the streamlining and rationalization of the decision-making process. Those systems support managers in business decisionmaking in order to create economy value growth of an enterprise. BI encompass a broad spectrum of technologies, including data mining tools- algorithms for automatic analysis of great volumes of data; they use statistical and econometric methods, as well as machine learning ones which can analyze not only quantitative, but also qualitative data. This class of technological systems is based on the data collected by data warehouses i.e. database systems which serve to gather data from various sources and make it readily available to business users. Despite the almost total computerization of the fundamental business processes, managers still have a fragmentary knowledge of their own businesses and often take decisions intuitively. Simultaneously, confusion caused by the excess of available data and a lack of its organization can be observed. Moreover, errors in data, lack of cohesion and difficulties with their connection, and a few versions of 'the truth' in an enterprise has also led to a lack of trust in the gathered data. All those factors aided the increased use of BI by enterprises. There are some sectors which already cannot do without such solutions, for instance telecommunications and banking. The belief that analytical technologies are key tool to gaining a competitive advantage is also clearly visible at present.