"Data Warehousing and Beyond: Advances and Challenges in Business Intelligence"

A Course for PhD students, University of Bologna, April, 2015

Instructors and affiliation	Stefano Rizzi, Matteo Francia (*DISI, University of Bologna*)
Time span	10 hours
Final exam	Written test

Course Outline

The course discusses some relevant research themes in the area of Data Warehousing, OLAP, and Business Intelligence.

Objectives

Business intelligence (BI) is a business management term that indicates the capability of adding more intelligence to the way business is done by companies. More precisely, it refers to a set of software tools and techniques that enable a company to transform its business data into timely and accurate information for the decisional process. The course will first introduce the main topics related to BI; in particular, the basic level of the BI pyramid will be discussed, namely data warehousing. Some relevant research themes in the area of BI will then be explored.

Program:
- The business intelligence pyramid
- Data warehouse basics: architectures, the multidimensional model, OLAP, methodological issues
- Research issues in BI 2.0: pervasive BI, collaborative BI, social BI

The course is oriented to PhD students in the areas of information systems and databases, and also computer science/computer engineering in general.

Learning and assessment modalities

The course will be organised in three slots of three hours each, plus one hour for the final assessment. It will be taught in either Italian or English at the preference of the convenors.
The final assessment consists of a written test on the course topics.

Materials

All the course material is in English. A copy of slides and references will be provided to students.

Detailed topics/Schedule
April/May 2015, four days (10 hs)

April 10, 3pm-6pm, Room 5.6
Introduction to business intelligence and data warehousing
Stefano Rizzi

April 17, 10am-13am, Sala Consiglio
BI 2.0: Pervasive BI & Collaborative BI
Stefano Rizzi

April 24, 10am-13am, Sala Consiglio
BI 2.0: Social BI
Stefano Rizzi, Matteo Francia

May 8, 11am-12am, Sala Consiglio
Final assessment
Stefano Rizzi