UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Data Visualization

2223-1-FDS01Q001-FDS01Q036M

Aims

At the end of the course students will have acquired skills in analysis, evaluation and, to a lesser extent, development of complex and interactive infographics.

Contents

Velocity: data architecture for capturing and elaborating near real time data

Detailed program

Data visualization

- Introduction to the Human Data Interaction (Definitions, main concepts and methodologies)

- Data Transformation into sources of knowledge through visual representation.

- Requirements and heuristics for high-quality visualizations: dos and donts.

- Charts and standard views: relevance and appropriateness.

- Advanced and innovative tools for data visualization and advanced quantitative analysis.

- The evaluation of the quality of visualizations and infographics.

o Qualitative assessment: expert and heuristic;

o Quantitative assessment: user tasks; inferential statistical techniques.

o Validated psychometric questionnaires and their analysis and understanding.

- Elements of visual semiotics and social semiotics.

Prerequisites

knowledge of relational model

Teaching form

Lectures and exercises in the classroom and on virtual lab

Lectures with the support of slideware, discussion of practical cases through the forum, discussion of practical home-work projects.

Some self-assessment tests, not considered for the final evaluation will be provided

Textbook and teaching resource

Yau, N. (2011). *Visualize this: the FlowingData guide to design, visualization, and statistics*. John Wiley & Sons.

Ware, C. (2012). Information visualization: perception for design. Elsevier.

Scientific articles and class pack provided by the lecturers.

Semester

first semester

Assessment method

A test and a project related to the topic of the module

Office hours

Please send an e-mail to teachers to arrange an appointment

Sustainable Development Goals