ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
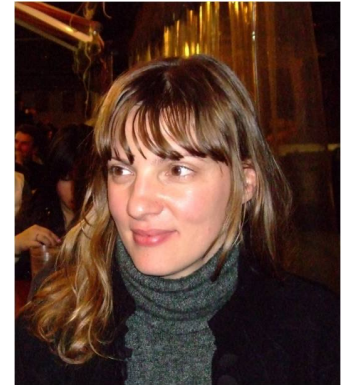
Courses freely chosen by the students

International Master's Degree in

Computer Sciece

Multimedia Data Management - 6 cfu

- **Ilaria Bartolini**
  Department of Computer Science and Engineering (DISI)
  Multimedia Database Group
  Datalab
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- **Period II**: February 2026 - June 2026

- **Main objective**:
  The course presents **classic pipelines** for **designing** and **implementing modern, advanced multimedia (MM) data systems** with the aim to facilitate the «*access*» to **very large, complex** «*unconventional data*», notably **MM Big Data**, like full-text documents, Web pages, image/video/audio/stream collections, and/or combination of them, to **non-expert users** by extracting and exploiting their «*value*»

**+** **Project Work in Multimedia Data Management - 3 cfu**

`https://www.unibo.it/sitoweb/ilaria.bartolini/teachings`

What will I be able to do at the end of the course?

- The student will have the **methodology**, **modeling**, **design**, and **implementation** skills and expertise related to the **development of *smart* MM «data-intensive» applications** and **services** like the the ones included in commercial solutions like:

  - **Google search engine**,
  - **YouTube**,
  - **Facebook**,
  - **Instagram**,
  - **Flickr**, **Twitter**, **Podcast**, just to named a few…

- but especially **smarter extensions/evolutions** of them! ☺
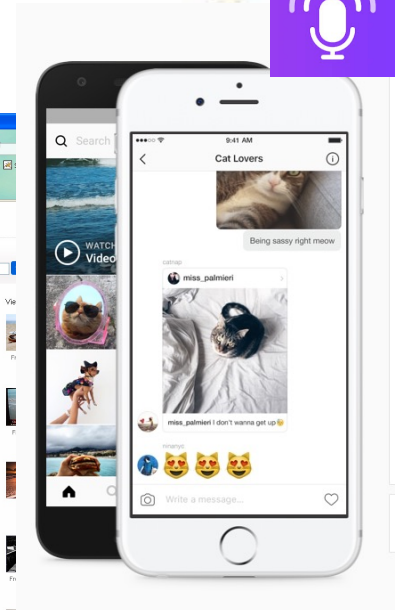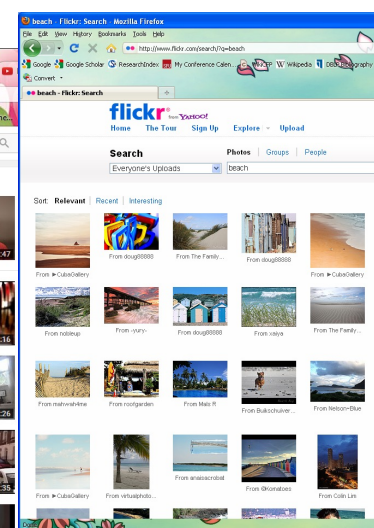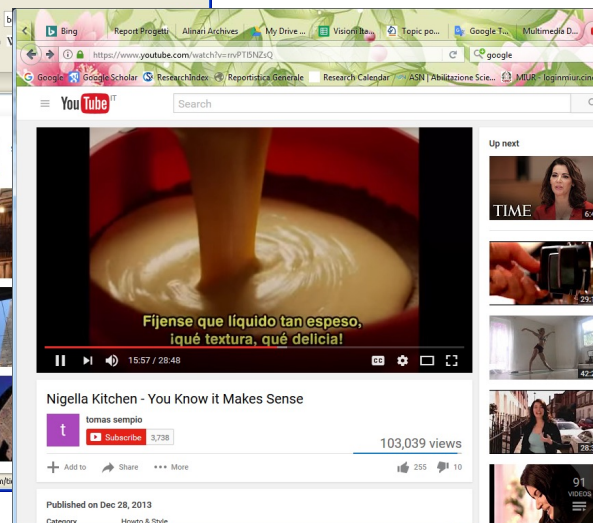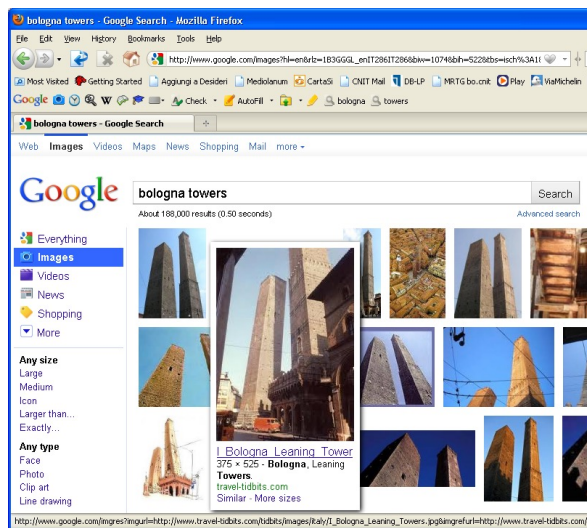
What will I be able to do at the end of the course?

- To this end, all necessary expertise relating to the **effective** and **efficient management of MM Big Data** will be supplied, with particular attention to the problems of:
  - **MM data representation**
  - **MM data retrieval models**
  - **Interaction paradigms between the user and the MM data system**, both for purposes of **data presentation** and **exploration** purposes

- The student will master the **architectures of traditional** and **advanced MM «data-intensive» systems** and **services**, **search engines**, **social networks**, and **recommender system**
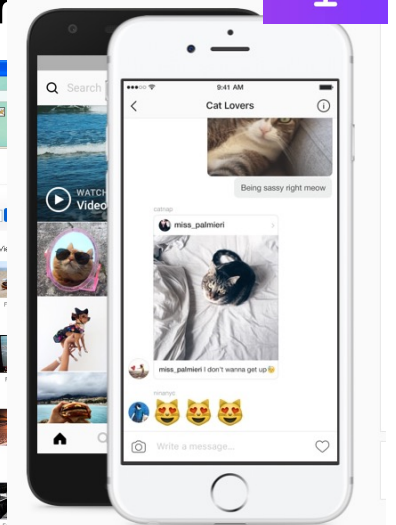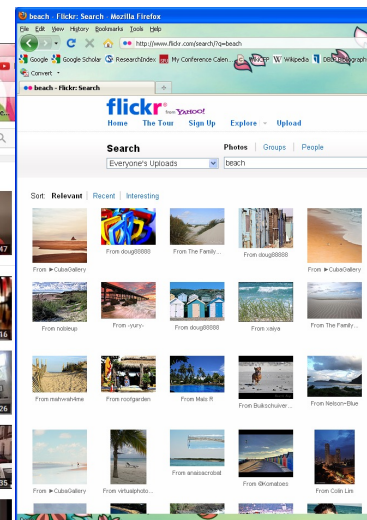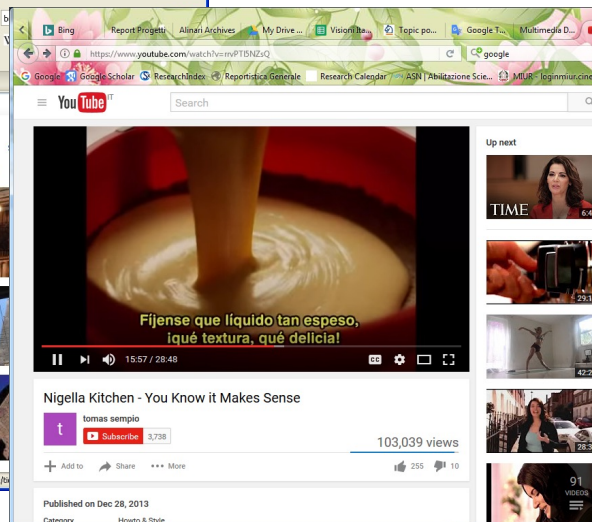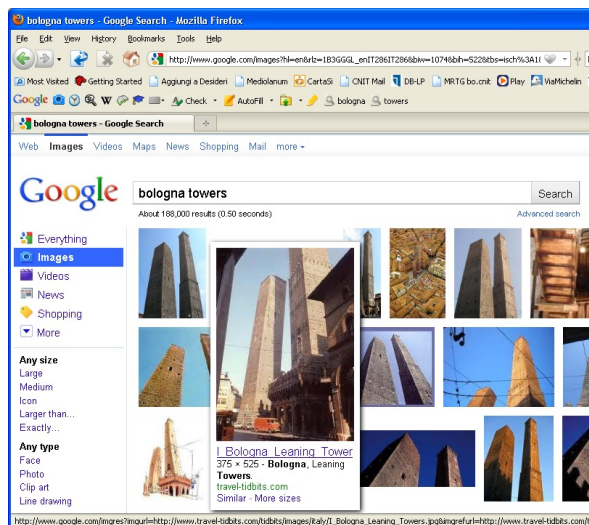
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Thank you!

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