“Interactive” Undergraduate Students
UNIPD at iCLEF 2008

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Outline

- Aim
- Users
- Questionnaires
- Log analysis
- Conclusions
This study aims at finding different behaviors between two groups
- Students of UNIPD
- All the other participants to the Flickling game

In particular
- Do students who study languages use the Flickling interface in a different way?
- Do students have the same difficulties in finding/not finding images if compared to other users?

How can we “see” the differences?
- Questionnaires
- Log analysis
How to convince students…

- ...of the Faculty of Humanities of the University of Padua
  - Linguistic and Modern Cultures
  - Languages for Cultural Mediation

- How to motivate students?
  - Give them an extra point to the exam (and they can find million of images in any language)

- However, very strict rules
  - Cheating is not allowed
  - Play as many times as you like, but in a different group!

- 60 students participated in the experiment
A language for each user…

- **Linguistic skills**

- **Mother tongue**
  - Italian (mostly)
  - but also many students from Eastern European countries

- **Main language studied**
  - English or Spanish

- **Second and third language studied**
  - German, French, Portuguese
  - but also some other choices, such as Russian, Romanian
A questionnaire for each image…and more

- During the Flickling game, questionnaires are shown:
  - at the end of the search of each image
    - the found image questionnaire
    - the give up questionnaire
  - after a certain number of images:
    - the overall questionnaire

- How many questionnaires?
  - the found image questionnaire
    - 1,607 UNIPD
    - 1,993 others
  - the give up questionnaire
    - 479 UNIPD
    - 516 others
  - overall questionnaire
    - 27 + 17 UNIPD
    - 26 others
It was hard because I didn’t know the language in which the image was annotated (6% vs 16%)

It was hard because of the size of the image set (10% vs 20%)

It was hard because I needed to translate the query (2% vs 10%)
Don’t give up!

The translation provided by the system are not right
(8% vs 13%)

There are too many images for my search

I can’t find suitable keywords for this image
(38% vs 52%)
Overall Questionnaire

- 27 single choices questions plus 2 open questions
  - Single choices with graded preferences
  - Likert scale
  - t-test, alpha = 5%

- Statistically significant differences were
  - “the search task you performed was interesting”
    - more interesting for UNIPD
  - “Which, in your opinion, are the most challenging aspects of the task? Handling multiple target languages at the same time”
    - strongly agreement for the others (there is a tendency, not a significant difference)
  - “Which interface facilities did you miss? The possibility to search according to visual features of the images”
    - strongly agreement for the others
Log analysis

- The log file recorded actions from April 24th 2008 until June 16th 2008 for a total of 1,483,806 recorded actions.
  - For the purpose of the analysis and for a more convenient management, log was loaded into PostgreSQL database.
- Found or skipped?
- Hints and clues
- Monolingual or multilingual?
Found or skipped?

UNIPD top scorer

# of images

- viewed
- found
Hints and clues

![Graph showing average of hints requested vs score]
Monolingual or Multilingual

![Bar chart showing comparison between mono search and cross search across different years.](image)
Conclusions

- The hardest part is the size of the set of images retrieved
- Describing the image is a difficult task (both the user who searches the image and the user who annotates the image)
- Describing the image in a different language is even more difficult
- There is not a “winning” strategy