TrebleCLEF

"Interactive" Undergraduate Students
UNIPD at iCLEF 2008

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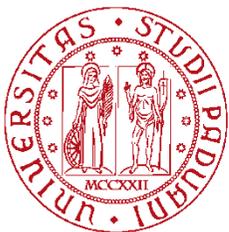
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Outline

□ Aim

□ Users

□ Questionnaires

□ Log analysis

□ Conclusions

UNIPD…and the "Others"

- ❑ **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
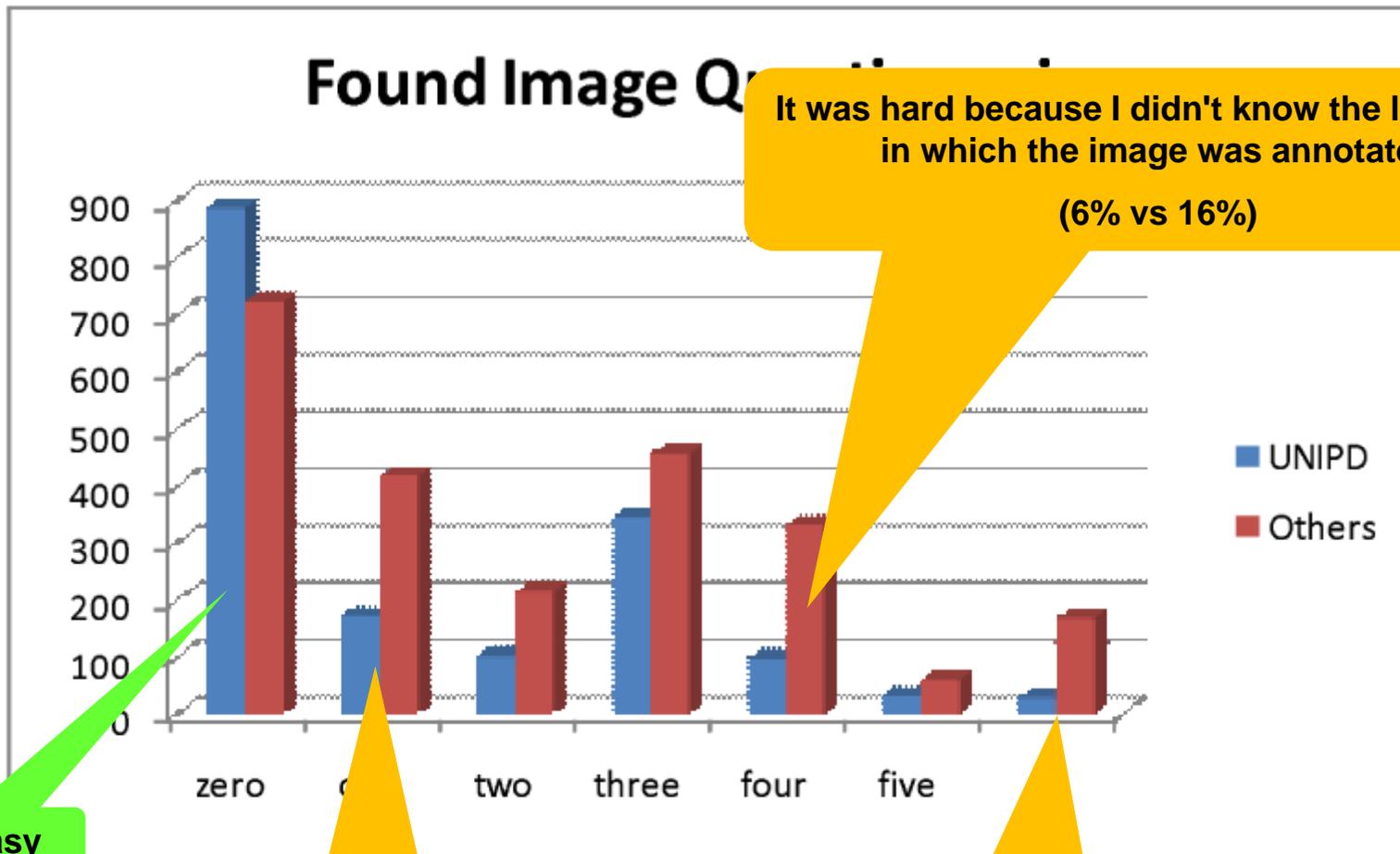
○ **Second and third language studied**
- German, French, Portuguese
- but also some other choices, such as Russian, Romanian

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
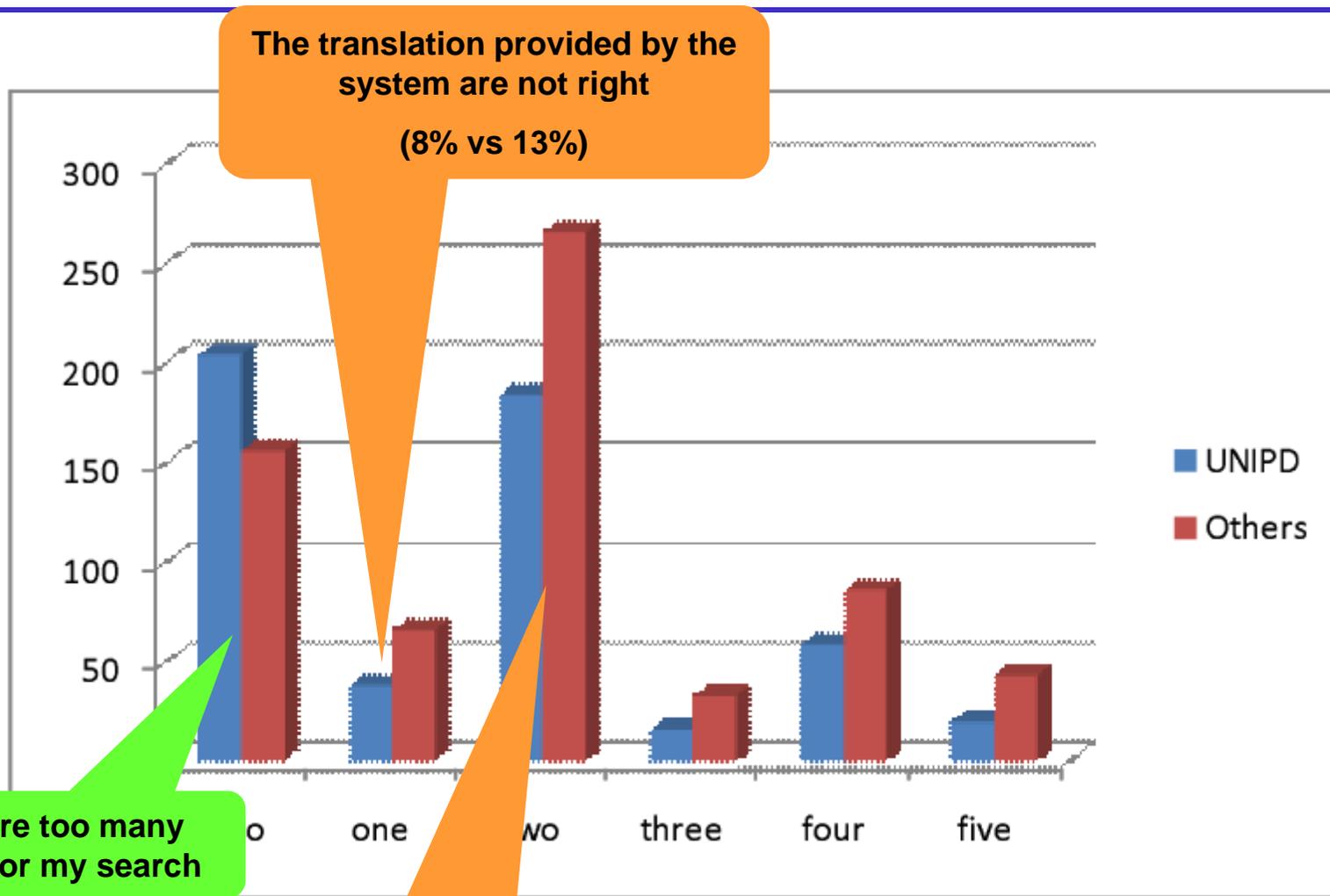 - ■ 26 others

Found Image Q...

It was hard because I didn't know the language in which the image was annotated

(6% vs 16%)

It was easy

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%)

Legend: ■ UNIPD ■ Others

X-axis: one, two, three, four, five

Y-axis: 50, 100, 150, 200, 250, 300

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 significan difference)
  ○ "Which interface facilities did you miss? The possibility to search according to visual features of the images"
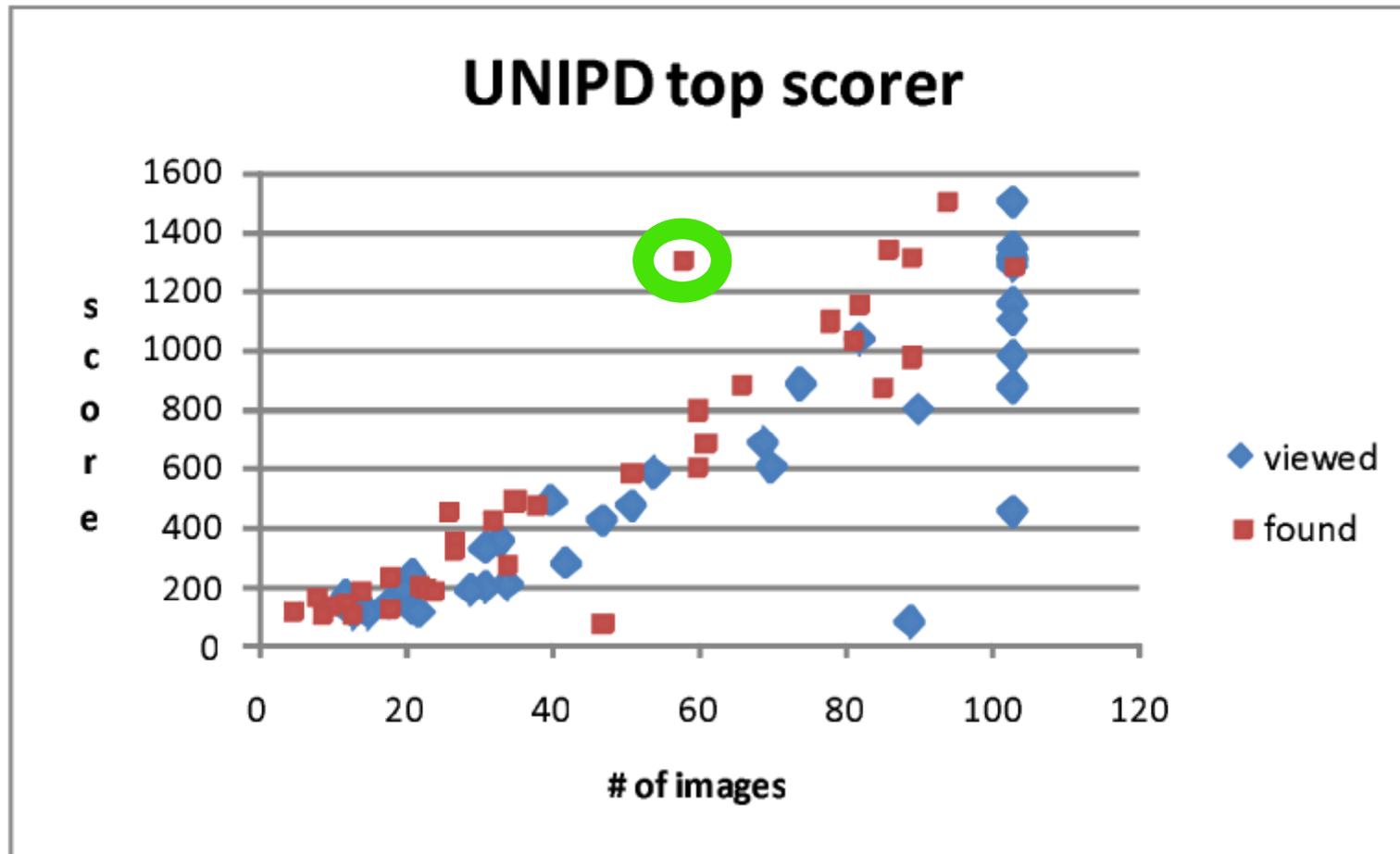   ■ strongly agreement for the others

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.
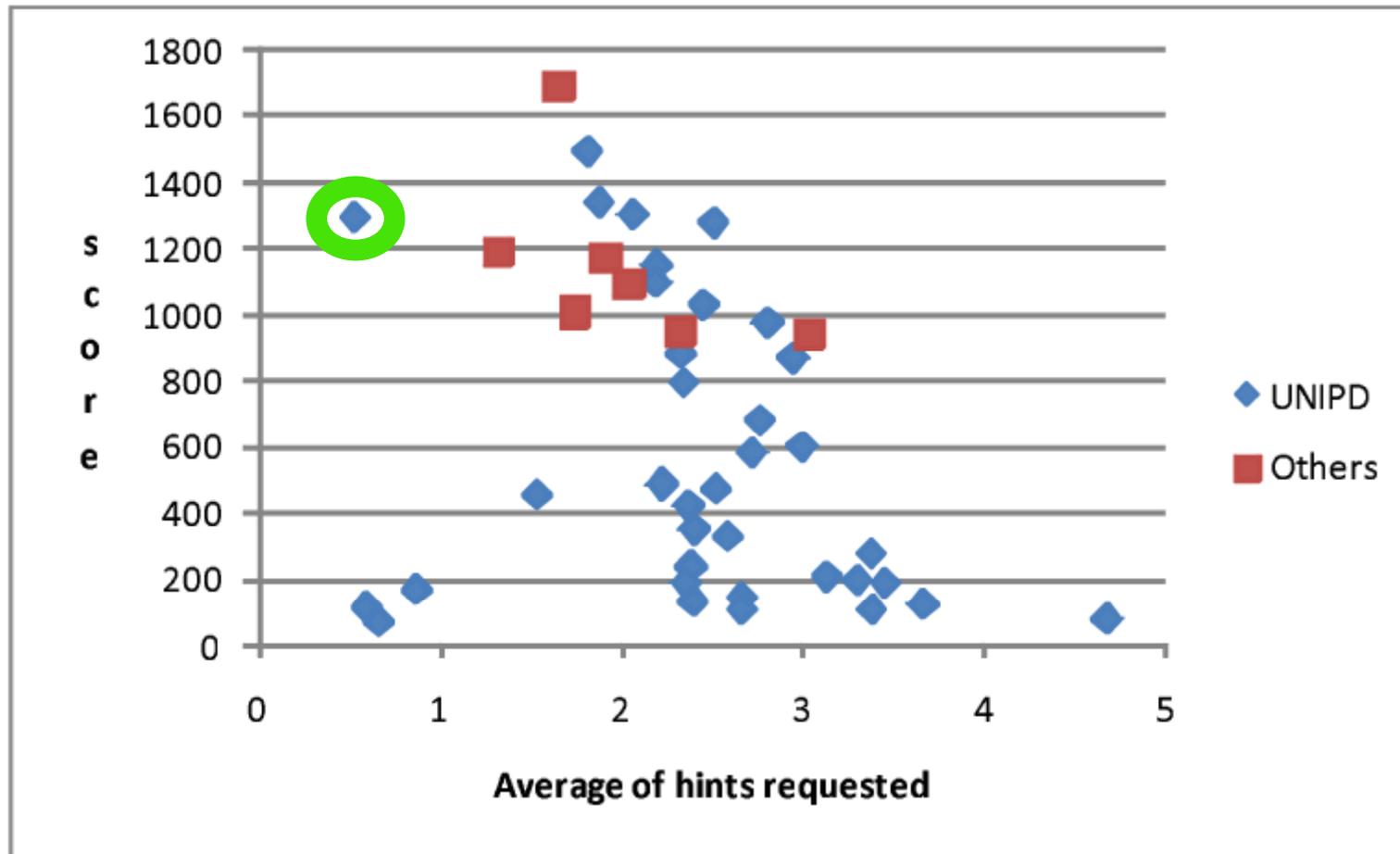
❑ Found or skipped?
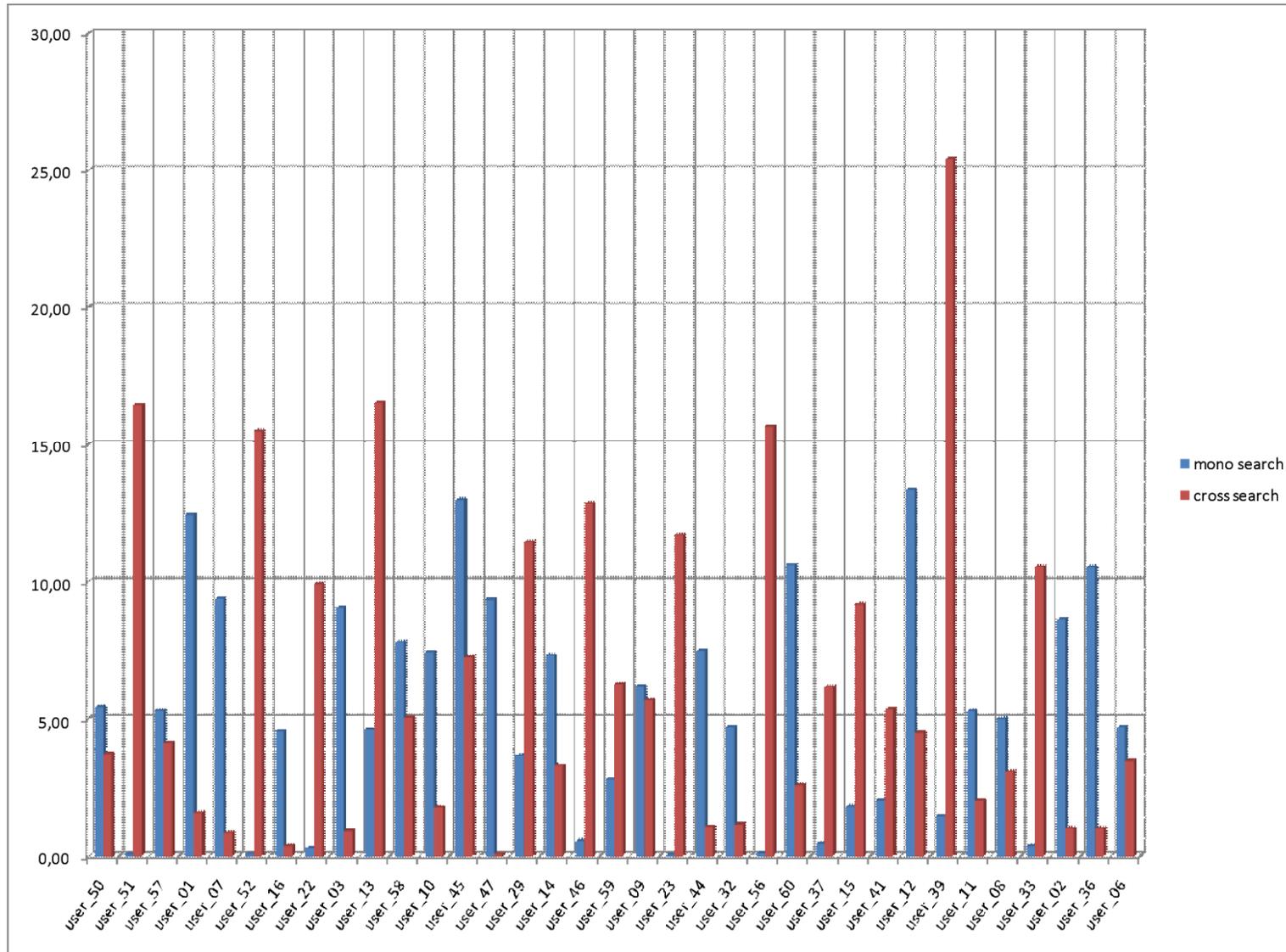
❑ Hints and clues

❑ Monolingual or multilingual?

Found or skipped?

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Monolingual or Multilingual

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